

Collins



ASSESSMENT

YEARS 1-6



AUTHORS: LIZ LAWRENCE, NICOLA BEVERLEY, BRYONY TURFORD
SERIES EDITOR: JANE TURNER



ASSESSMENT YEARS 1-6

**Authors: Liz Lawrence, Nicola Beverley,
Bryony Turford**

Series Editor: Jane Turner

CONTENTS

Introduction	4
Linking Programme of Study, Teacher Assessment Framework and Snapshots KS1	6
Linking Programme of Study, Teacher Assessment Framework and Snapshots KS2	8
Snapshots – Year 1	15
Snapshots – Year 2	57
Snapshots – Year 3	89
Snapshots – Year 4	128
Snapshots – Year 5	160
Snapshots – Year 6	195
Record-keeping – Year 1	229
Record-keeping – Year 2	247
Record-keeping – Year 3	266
Record-keeping – Year 4	285
Record-keeping – Year 5	304
Record-keeping – Year 6	327

SNAP SCIENCE ASSESSMENT YEARS 1-6 INTRODUCTION

The Snap Science Snapshots are short assessment activities that a teacher or other adult can use with a child or small group of children to check understanding of National Curriculum Programme of Study for Science concept statements.

What do I need to know about Snapshots?

- Each Snapshot has four elements:
 1. The activity resources (images, cards, etc. that adults will need to prepare); for some Snapshots practical resources are required.
 2. Instruction for the adult leading the activity
 3. Questions for adults to use to check and probe understanding
 4. Guidance for adults to assess that a child has achieved the Programme of Study statement
- Snapshots are:
 - Reliable: they will lead to consistent assessment judgments if repeated with several children.
 - Valid: they assess the statement only – not something that *could* be inferred.
 - Consistent with curriculum aims: when the Programme of Study statement says *give reasons, compare, or explain* the Snapshot assesses this, not simply a recall of knowledge.
- Snapshots are intended to support, not replace, teacher assessment judgments based on children's classroom work and practical activity.
- There are no Snapshots for the Working Scientifically statements in the Programme of Study. These should be assessed when children are carrying out enquiries.
- Usually the Snapshot tests the entire statement, but sometimes there is more than one Snapshot for a statement if more than one idea is covered.
- Snapshots mirror the type of assessment activities used in Snap Science lessons; for example, card sorts, true or false, sorting, labelling, annotating drawings, definition loops, concept sentences, sequencing, graphic organisers, games, odd one out, matching and probing questions.

When can Snapshots be used?

- Snapshots should be used at the end of sequence of teaching a topic. They are intended for use when a teacher is unable to make a secure assessment judgment about one or more Programme of Study statements for a child, or group of children, based on evidence of work completed or observations made during lessons. They should be used at the time when the topic is taught.
- They could be used at the end of Key Stage when a child's records show that they didn't achieve the statement when taught it in a previous year group, or the data is missing, but the teacher thinks their understanding has developed.
- The Interim Teacher Assessment Framework for the end of Key Stage 1 and the end of Key Stage 2 states that *to assess that pupils have met the end of Key Stage standard teachers will need to draw on assessment judgements that have been made and recorded earlier regarding science content that was taught before the final year of the Key Stage*. Snapshots should NOT be used at the end of Key Stage to assess children's achievement of all the Programme of Study statements again.

How can the assessment data be recorded?

- Individual and whole class tracking sheets are provided for class teachers to periodically record children's achievement of Programme of Study statements as they are taught, using formative assessment evidence from lessons and Snapshots. They should use the following criteria: achieved, not yet achieved, and achieved and exceeded.

- These tracking sheets allow teachers to report individual children's attainment to parents and other teachers and whole cohorts' performance as required.
- At the end of Key Stage the teachers are required to use the Interim Teacher Assessment Framework to summarise assessment judgments made across the whole Key Stage. The Interim Teacher Assessment Framework is a summary of the Programme of Study statements for each year group, and therefore no further assessment is required if assessment judgments have been recorded throughout the Key Stage.
- The following tables show how the Programme of Study is summarised in the Teacher Assessment Framework and how the Snapshots can help to make the assessment judgments at the time when the topic or concept is taught.

LINKING PROGRAMME OF STUDY, TEACHER ASSESSMENT FRAMEWORK AND SNAPSHOTS KS1

Working scientifically KS1		Assessment framework. The pupil can:	
<ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions 		<ul style="list-style-type: none"> ask their own questions about what they notice use different types of scientific enquiry to gather and record data, using simple equipment where appropriate, to answer questions including: <ul style="list-style-type: none"> observing changes over time noticing similarities, differences and patterns grouping and classifying things carrying out simple comparative tests finding things out using secondary sources of information use appropriate scientific language from the national curriculum to communicate their ideas in a variety of ways, what they do and what they find out. 	
Y1 curriculum statements	Y2 curriculum statements	Assessment framework. The pupil can:	
<ul style="list-style-type: none"> Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense Snapshot – Body Parts	<ul style="list-style-type: none"> Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene Snapshot – Caring for Ourselves	<ul style="list-style-type: none"> name and locate parts of the human body, including those related to the senses, and describe the importance of exercise, balanced diet and hygiene for humans 	
	<ul style="list-style-type: none"> Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) Snapshot – Basic Needs <ul style="list-style-type: none"> Notice that animals, including humans, have offspring which grow into adults Snapshot – All Grown Up!	<ul style="list-style-type: none"> describe the basic needs of animals for survival and the main changes as young animals, including humans, grow into adults 	
<ul style="list-style-type: none"> Identify and describe the basic structure of a variety of common flowering plants, including trees Snapshot – Name that Parti	<ul style="list-style-type: none"> Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy Snapshot – Plant Doctor <ul style="list-style-type: none"> Observe and describe how seeds and bulbs grow into mature plants Snapshot – Growing Plants	<ul style="list-style-type: none"> describe basic needs of plants for survival and the impact of changing these and the main changes as seeds and bulbs grow into mature plants 	
	<ul style="list-style-type: none"> Explore and compare the differences between things that are living, dead, and things that have never been alive Snapshot – Odd One Out	<ul style="list-style-type: none"> identify whether things are alive, dead or have never lived 	

<ul style="list-style-type: none"> Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) <p>Snapshot – Describe and Compare</p>		<ul style="list-style-type: none"> describe and compare the observable features of animals from a range of groups
<ul style="list-style-type: none"> Identify and name a variety of common animals that are carnivores, herbivores and omnivores <p>Snapshot – Who Eats What?</p>	<ul style="list-style-type: none"> Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food <p>Snapshot – Who Eats What?</p>	<ul style="list-style-type: none"> group animals according to what they eat, describe how animals get their food from other animals and/or from plants, and use simple food chains to describe these relationships
<ul style="list-style-type: none"> Observe changes across the four seasons <p>Snapshot – Which Season is Which?</p>		<ul style="list-style-type: none"> describe seasonal changes
<ul style="list-style-type: none"> Observe and describe weather associated with the seasons and how day length varies <p>Snapshot – Whatever the Weather</p>		
<ul style="list-style-type: none"> Identify and describe the basic structure of a variety of common flowering plants, including trees <p>Snapshot – Name that Parti</p>	<ul style="list-style-type: none"> Identify and name a variety of plants and animals in their habitats, including micro-habitats <p>Snapshot – Name that Living Thing!</p>	<ul style="list-style-type: none"> name different plants and animals and describe how they are suited to different habitats
<ul style="list-style-type: none"> Identify and name a variety of common wild and garden plants including deciduous and evergreen trees <p>Snapshot – Name that Plant!</p>	<ul style="list-style-type: none"> Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other <p>Snapshot – Who Lives Here?</p>	
<ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals <p>Snapshot – Name that Animal!</p>		
<ul style="list-style-type: none"> Distinguish between an object and the material from which it is made <p>Snapshot – Materials and Objects</p>	<ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses <p>Snapshot – Which Materials are Suitable?</p>	<ul style="list-style-type: none"> use their knowledge and understanding of the properties of materials, to distinguish objects from materials, identify and group everyday materials, and compare their suitability for different uses.
<ul style="list-style-type: none"> Describe the simple physical properties of a variety of everyday materials <p>Snapshot – What are My Properties?</p>	<ul style="list-style-type: none"> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching <p>Snapshot – Changing Shape</p>	
<ul style="list-style-type: none"> Compare and group together a variety of everyday materials on the basis of their simple physical properties <p>Snapshot – Comparing and Grouping Materials</p>		

LINKING PROGRAMME OF STUDY, TEACHER ASSESSMENT FRAMEWORK AND SNAPSHOTS KS2

Working scientifically LKS2	Working scientifically UKS2	Assessment framework. The pupil can:		
<ul style="list-style-type: none">• using straightforward scientific evidence to answer questions or to support their findings• asking relevant questions and using different types of scientific enquiries to answer them• setting up simple practical enquiries, comparative and fair tests• identifying differences, similarities or changes related to simple scientific ideas and processes• making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers• gathering, recording, classifying and presenting data in a variety of ways to help in answering questions• recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables• reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions• using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	<ul style="list-style-type: none">• identifying scientific evidence that has been used to support or refute ideas or arguments• planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary• taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate• recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs• reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations• using test results to make predictions to set up further comparative and fair tests	<ul style="list-style-type: none">• describe and evaluate their own and other people's scientific ideas related to topics in the national curriculum (including ideas that have changed over time), using evidence from a range of sources• ask their own questions about the scientific phenomena they are studying, and select and plan the most appropriate ways to answer these questions, or those of others, recognising and controlling variables where necessary – including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests, and finding things out using a wide range of secondary sources of information• use a range of scientific equipment to take accurate and precise measurements or readings, with repeat readings where appropriate• record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs• present findings and draw conclusions in different forms, and raise further questions that could be investigated, based on their data and observations• use appropriate scientific language and ideas from the national curriculum to explain, evaluate and communicate their methods and findings.		
Y3 curriculum statements	Y4 curriculum statements	Y5 curriculum statements	Y6 curriculum statements	Assessment framework.
<ul style="list-style-type: none">• Identify that humans and some other animals have skeletons and muscles for support, protection and movement <p>Snapshot – True or False: Skeleton</p> <p>Snapshot – Muscle Movers</p>	<ul style="list-style-type: none">• Describe the simple functions of the basic parts of the digestive system in humans <p>Snapshot – Digestion</p> <ul style="list-style-type: none">• Identify the different types of teeth in humans and their simple functions <p>Snapshot – Teeth Teaser</p>	<ul style="list-style-type: none">• Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird <p>Snapshot – What is the Same and What is Different?</p> <ul style="list-style-type: none">• Describe the life process of reproduction in some plants and animals <p>Snapshot – Starting All Over Again – Plants</p> <ul style="list-style-type: none">• Describe the changes as humans develop to old age <p>Snapshot – Birth to Old Age</p>	<ul style="list-style-type: none">• Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood <p>Snapshot – Circulation System</p> <ul style="list-style-type: none">• Describe the ways in which nutrients and water are transported within animals, including humans <p>Snapshot – Why Water?</p>	<ul style="list-style-type: none">• name, locate and describe the functions of the main parts of the digestive, musculoskeletal, and circulatory systems, and can describe and compare different reproductive processes and life cycles, in animals

<ul style="list-style-type: none"> Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat Snapshot – Food and Nutrients			<ul style="list-style-type: none"> Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function Snapshot – Impact of Diet Choices Snapshot – Impact of Exercise Choices Snapshot – Impact of Drugs	<ul style="list-style-type: none"> describe the effects of diet, exercise, drugs and lifestyle on how their bodies function
<ul style="list-style-type: none"> Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers Snapshot – What if? Plant Parts <ul style="list-style-type: none"> Investigate the way in which water is transported within plants Snapshot – True or False: Water Transportation <ul style="list-style-type: none"> Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal Snapshot – Flowering Plant Life Cycles		<ul style="list-style-type: none"> Describe the life process of reproduction in some plants and animals Snapshot – Starting All Over Again – Plants		<ul style="list-style-type: none"> name, locate and describe the functions of the main parts of plants, including those involved in reproduction and transporting water and nutrients
	<ul style="list-style-type: none"> Recognise that living things can be grouped in a variety of ways Snapshot – Odd One Out: Animals <ul style="list-style-type: none"> Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment Snapshot – Identification Keys		<ul style="list-style-type: none"> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals Snapshot – Who Am I? <ul style="list-style-type: none"> Give reasons for classifying plants and animals based on specific characteristics Snapshot – Classification: True or False	<ul style="list-style-type: none"> use the observable features of plants, animals and micro-organisms to group, classify and identify them into broad groups, using keys or in other ways
<ul style="list-style-type: none"> Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat Snapshot – Food and Nutrients	<ul style="list-style-type: none"> Construct and interpret a variety of food chains, identifying producers, predators and prey Snapshot – Who Eats Who?			<ul style="list-style-type: none"> construct and interpret food chains

<ul style="list-style-type: none"> Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant <p>Snapshot – Where Shall We Plant Our Tree Seedlings?</p>	<ul style="list-style-type: none"> Recognise that environments can change and that this can sometimes pose dangers to living things <p>Snapshot – Positive or Negative Charge?</p>			<ul style="list-style-type: none"> explain how environmental changes may have an impact on living things
<ul style="list-style-type: none"> Describe in simple terms how fossils are formed when things that have lived are trapped within rock <p>Snapshot – Fossil Formation</p>			<ul style="list-style-type: none"> Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago <p>Snapshot – Looking for Clues</p> <ul style="list-style-type: none"> Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents <p>Snapshot – What If? Consequences</p> <ul style="list-style-type: none"> Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution <p>Snapshot – Environmental Change</p>	<ul style="list-style-type: none"> use the basic ideas of inheritance, variation and adaptation to describe how living things have changed over time and evolved; and describe how fossils are formed and provide evidence for evolution
<ul style="list-style-type: none"> Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties <p>Snapshot – Characteristics of Rocks</p> <ul style="list-style-type: none"> Recognise that soils are made from rocks and organic matter <p>Snapshot – What is Soil Made From?</p> <ul style="list-style-type: none"> Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials <p>Snapshot – What is Magnetic?</p>	<ul style="list-style-type: none"> Recognise some common conductors and insulators, and associate metals with being good conductors <p>Snapshot – Electrical Conductors and Insulators</p>	<ul style="list-style-type: none"> Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets <p>Snapshot – Defining Properties</p> <ul style="list-style-type: none"> Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic <p>Snapshot – Why Am I Made From This?</p>		<ul style="list-style-type: none"> group and identify materials, including rocks, in different ways according to their properties, based on first-hand observation; and justify the use of different everyday materials for different uses, based on their properties

	<ul style="list-style-type: none"> Compare and group materials together, according to whether they are solids, liquids or gases <p>Snapshot – Which State is Which?</p> <ul style="list-style-type: none"> Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) <p>Snapshot – Changes of State</p> <ul style="list-style-type: none"> Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature <p>Snapshot – The Water Cycle</p>			<ul style="list-style-type: none"> describe the characteristics of different states of matter and group materials on this basis; and describe how materials change state at different temperatures, using this to explain everyday phenomena, including the water cycle
		<ul style="list-style-type: none"> Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution <p>Snapshot – Solutions</p> <ul style="list-style-type: none"> Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating <p>Snapshot – Sort It Out – Separating Materials</p>		<ul style="list-style-type: none"> identify, and describe what happens when dissolving occurs in everyday situations; and describe how to separate mixtures and solutions into their components

		<ul style="list-style-type: none"> Demonstrate that dissolving, mixing and changes of state are reversible changes Snapshot – Can We Change It Back? Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. 		<ul style="list-style-type: none"> identify, with reasons, whether changes in materials are reversible or not
<ul style="list-style-type: none"> Recognise that they need light in order to see things and that dark is the absence of light Snapshot – What Do We Need to See? Notice that light is reflected from surfaces Snapshot – What Reflects Best? Quiz Recognise that light from the sun can be dangerous and that there are ways to protect their eyes Snapshot – Sun Protection Recognise that shadows are formed when the light from a light source is blocked by an opaque object Snapshot – Where is the Shadow? Find patterns in the way that the size of shadows change Snapshot – Shadow Size 			<ul style="list-style-type: none"> Recognise that light appears to travel in straight lines Snapshot – How Does Light Travel? Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes Snapshot – Seeing Objects Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye Snapshot – Seeing Objects Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them Snapshot – Making Sharply Defined Shadows 	<ul style="list-style-type: none"> use the idea that light from light sources, or reflected light, travels in straight lines and enters our eyes to explain how we see objects, and the formation, shape and size of shadows
	<ul style="list-style-type: none"> Identify how sounds are made, associating some of them with something vibrating Snapshot – Making Sounds Recognise that vibrations from sounds travel through a medium to the ear Snapshot – Sound Travelling 			<ul style="list-style-type: none"> use the idea that sounds are associated with vibrations, and that they require a medium to travel through, to explain how sounds are made and heard

	<ul style="list-style-type: none"> Find patterns between the pitch of a sound and features of the object that produced it Snapshot – Changing Pitch Find patterns between the volume of a sound and the strength of the vibrations that produced it Snapshot – Changing Volume Recognise that sounds get fainter as the distance from the sound source increases Snapshot – How Far Away Can You Hear It? 		<ul style="list-style-type: none"> describe the relationship between the pitch of a sound and the features of its source; and between the volume of a sound, the strength of the vibrations and the distance from its source
<ul style="list-style-type: none"> Compare how things move on different surfaces Snapshot – Slow Down or Speed Up? Notice that some forces need contact between two objects, but magnetic forces can act at a distance Snapshot – Contact Force or Not? Observe how magnets attract or repel each other and attract some materials and not others Snapshot – Magnetic Force Describe magnets as having two poles Snapshot – Magnetic Poles Predict whether two magnets will attract or repel each other, depending on which poles are facing Snapshot – Poles Attract and Repel 		<ul style="list-style-type: none"> Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object Snapshot – What is Gravity? Identify the effects of air resistance, water resistance and friction, that act between moving surfaces Snapshot – Drag Forces: Compare and Contrast 	<ul style="list-style-type: none"> describe the effects of simple forces that involve contact (air and water resistance, friction), and others that act at a distance (magnetic forces, including those between like and unlike magnetic poles; and gravity)
		<ul style="list-style-type: none"> Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect Snapshot – Annotating Mechanisms 	<ul style="list-style-type: none"> identify simple mechanisms, including levers, gears and pulleys that increase the effect of a force

	<ul style="list-style-type: none">Identify common appliances that run on electricity <p>Snapshot – Does It Use Electricity?</p> <ul style="list-style-type: none">Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers <p>Snapshot – Making a Circuit</p> <ul style="list-style-type: none">Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery <p>Snapshot – Will It Light?</p> <ul style="list-style-type: none">Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit <p>Snapshot – Switches</p>		<ul style="list-style-type: none">Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit <p>Snapshot – Voltage</p> <ul style="list-style-type: none">Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches <p>Snapshot – Resistance</p> <ul style="list-style-type: none">Use recognised symbols when representing a simple circuit in a diagram <p>Snapshot – Circuit Diagrams</p>	<ul style="list-style-type: none">use simple apparatus to construct and control a series circuit, and describe how the circuit may be affected when changes are made to it; and use recognised symbols to represent simple series circuit diagrams
		<ul style="list-style-type: none">Describe the Sun, Earth and Moon as approximately spherical bodiesDescribe the movement of the Earth, and other planets, relative to the Sun in the solar system <p>Snapshot – Solar System</p> <ul style="list-style-type: none">Describe the movement of the Moon relative to the Earth <p>Snapshot – The Moon: True of False</p> <ul style="list-style-type: none">Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky <p>Snapshot – Shadow Sequence</p>		<ul style="list-style-type: none">describe the shapes and relative movements of the sun, moon, earth and other planets in the solar system; and explain the apparent movement of the sun across the sky in terms of the earth's rotation and that this results in day and night.

SNAPSHOT ASSESSMENT: WHICH SEASON IS WHICH?

Year group: 1 | Module: OCW: Sensing Seasons. Lessons 1, 2, 3 | Module: OCW: Plants. Lessons 1, 3

Curriculum statement:

Observe changes across the four seasons.

Activity instructions

Ideal for use with pairs or groups of up to four children.

Lay out the four season cards at the top of the table in front of the children, reading each one as you do.

Place (a selection of) the seasonal evidence cards face up on the table in front of the children. Ask children to match the cards one at a time to the correct season card.

Ask them to say what they see each time they choose a card.

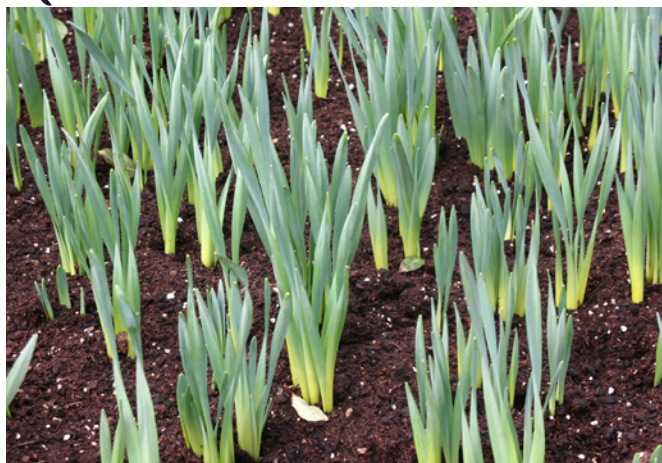
Children should be able to describe what the card shows and explain why they think it belongs under a particular season heading.

Questions to check understanding

What can you see on your card? What season is it? How can you tell?

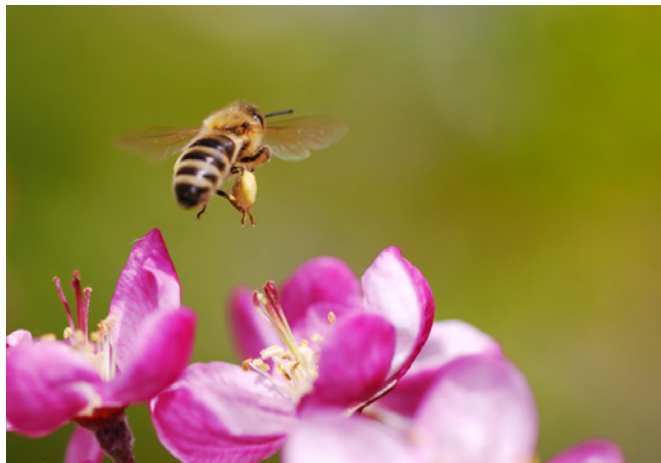
Curriculum statement is achieved if the child:

Can match almost all the cards to the correct season. Gives a reason for the choice they have made – and a plausible reason for any incorrectly placed cards.



SNAPSHOT ASSESSMENT: WHICH SEASON IS WHICH?

Year group: 1 | Module: OCW: Sensing Seasons. Lessons 1, 2, 3 | Module: OCW: Plants. Lessons 1, 3



SNAPSHOT ASSESSMENT: WHICH SEASON IS WHICH?

Year group: 1 | Module: OCW: Sensing Seasons. Lessons 1, 2, 3 | Module: OCW: Plants. Lessons 1, 3



SNAPSHOT ASSESSMENT: WHICH SEASON IS WHICH?

Year group: 1 | Module: OCW: Sensing Seasons. Lessons 1, 2, 3 | Module: OCW: Plants. Lessons 1, 3



SNAPSHOT ASSESSMENT: WHICH SEASON IS WHICH?

Year group: 1 | Module: OCW: Sensing Seasons. Lessons 1, 2, 3 | Module: OCW: Plants. Lessons 1, 3



Spring

Summer

Autumn

Winter

SNAPSHOT ASSESSMENT: WHATEVER THE WEATHER

Year group: 1 | Module: OCW: Sensing Seasons. Lessons 4, 5

Curriculum statement:

Observe and describe weather associated with the seasons and how day length varies.

Activity instructions

Ideal for use with groups of up to six children. Give children one image at a time. Allow them sufficient time to look carefully and discuss with their group what they can see in the picture. Use prompt questions to explore children's observations. Children should be able to use the clues in each image to identify the weather conditions, suggest a season and possibly a month of the year when the scene might have taken place.

Questions to check understanding

What is this child wearing...on his / her head / feet / hands / body?
What sort of weather do you think the child is dressed for? What makes you think that? Why is that clothing good for a rainy / sunny / cold / windy day? What season do you think it might be? What month/s?
What makes you think that? What can you see in the background that tells you what the season might be?

Mastery is achieved if the child:

Can identify relevant clues to a particular kind of weather in each image. Can say how they know what the weather is like that day, using appropriate simple vocabulary to describe what they see. Can suggest a season and possibly a month of the year when the scene might have taken place.

SNAPSHOT ASSESSMENT: WHATEVER THE WEATHER

Year group: 1 | Module: OCW: Sensing Seasons. Lessons 4, 5



SNAPSHOT ASSESSMENT: WHATEVER THE WEATHER

Year group: 1 | Module: OCW: Sensing Seasons. Lessons 4, 5



SNAPSHOT ASSESSMENT: WHATEVER THE WEATHER

Year group: 1 | Module: OCW: Sensing Seasons. Lessons 4, 5



SNAPSHOT ASSESSMENT: WHATEVER THE WEATHER

Year group: 1 | Module: OCW: Sensing Seasons. Lessons 4, 5



SNAPSHOT ASSESSMENT: WHATEVER THE WEATHER

Year group: 1 | Module: OCW: Sensing Seasons. Lessons 4, 5



SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives

Curriculum statement:

Identify and describe the basic structure of a variety of common flowering plants, including trees.

Activity instructions

Ideal for use with groups of up to six children.

Choose a selection of images (four or five) to look at and discuss with the group of children. In this first selection, include at least one tree, a smaller flowering plant, an image showing a plant with fruit and an image showing exposed roots.


Ask the children to talk about each of the plants in turn, naming any that are familiar to them. Encourage them to describe the plants and identify obvious parts. Provide children with label cards (read these to the children, as necessary, so that all are clear what the labels say). Tell them to work with a partner to add labels to the plant images. Use either the images that the children have already seen (for confirmation purposes) or provide other images from the selection.

Questions to check understanding

What can you see? Do you know what sort of plant this is? What special parts does your plant have? Does your plant have flowers? Point to the petals. What colour are they? Does it have leaves? Does it have one main stem or lots of stems? Where are the roots? Why can't you see them on some of the plants? Point to any fruits – what are these?

Curriculum statement is achieved if the child:

Can identify parts of a variety of plants, including recognising that a tree's trunk is like the stem of other plants. Can locate the flowers, fruits, stems, leaves, on different types of plant. Can explain in simple terms that plants have roots, even when they can't be seen.



leaf	flower	root	stem
leaf	flower	root	stem
leaf	flower	petals	stem
leaf	flower	petals	stem
leaf	flower	petals	stem
leaf	flower	petals	stem
leaf	flower	root	stem
leaf	flower	root	stem

SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives



branch	fruit	
trunk	fruit	
trunk	fruit	
trunk	fruit	
trunk	fruit	
stem	fruit	
stem	branch	
stem	branch	
stem	branch	

SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PART!

Year group: 1 | Module: OCW: Plants. Whole module | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PLANT!

Year group: 1 | Module: OCW Plants | Module 1: Plant Detectives

Curriculum statement:

Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.

Activity instructions

Ideal for pairs or groups of up to six children.

Show children a selection of up to a dozen cards showing images of plants that are found in their locality. It is important that children have seen the plants first hand and are familiar with them, so that they can explain how they identify them.

Ask children to identify several plants, for example buttercup, pansy or horse chestnut, or groups of plant, for example wild, garden, or trees, from the selection you have provided. Add other cards showing a wider variety of plants and see whether children recognise any of those, or can

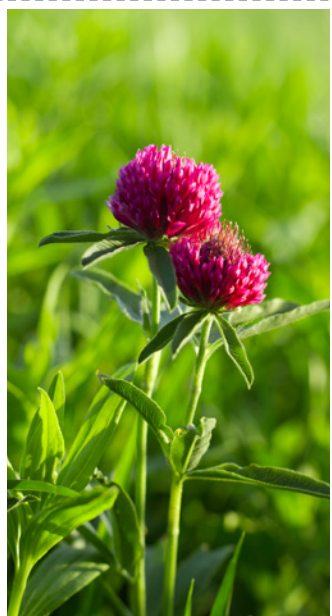
make suggestions about whether they belong to the wild plant, garden plant or tree group. Ask how they decide whether a plant is a tree. Ask how they decide whether a plant is wild or a garden plant.

Questions to check understanding

What is this called? Where have you seen it before? Describe it. Can you find another wild plant / garden plant / tree?

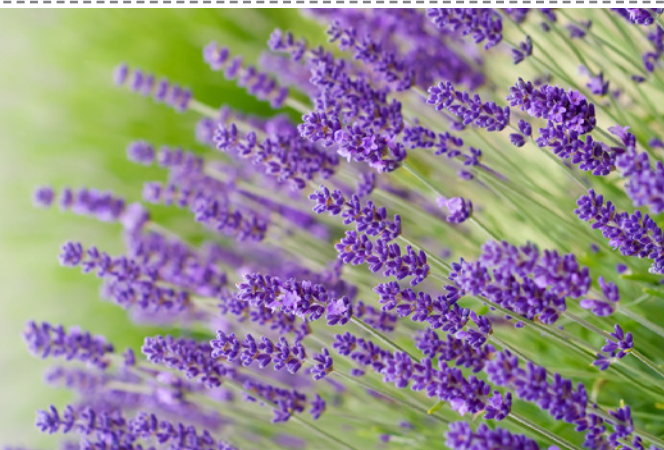
Curriculum statement is achieved if the child:

Can name two of each type of plant. Mentions key features and colours in their descriptions.



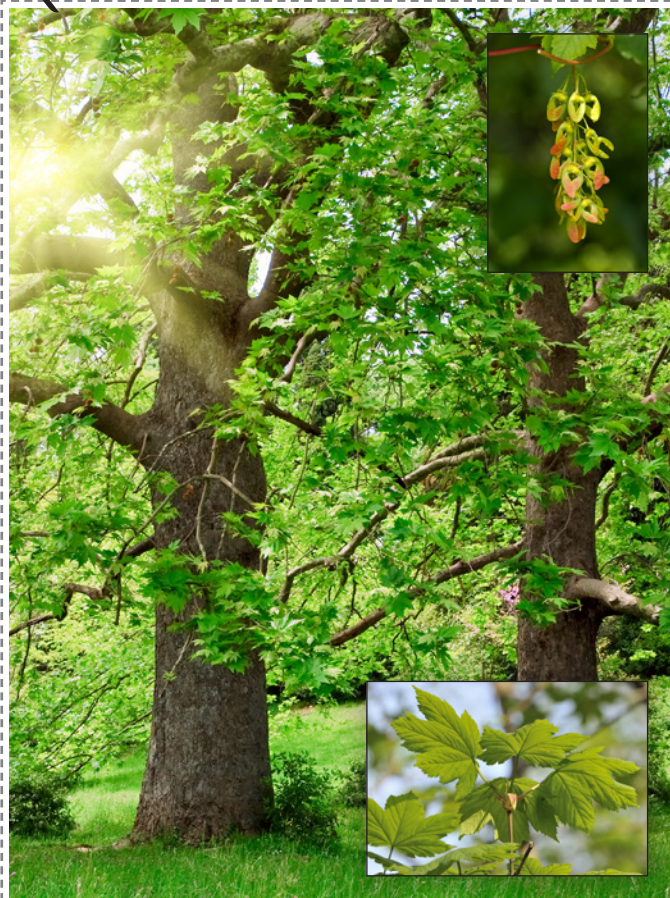
SNAPSHOT ASSESSMENT: NAME THAT PLANT!

Year group: 1 | Module: OCW Plants | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PLANT!

Year group: 1 | Module: OCW Plants | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT PLANT!

Year group: 1 | Module: OCW Plants | Module 1: Plant Detectives



SNAPSHOT ASSESSMENT: NAME THAT ANIMAL!

Year group: 1 | Module: OCW: Animal Antics. Whole module | Module 2: Looking at Animals. Lessons 1, EL1, EL2, EL3

Curriculum statement:

Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.

Activity instructions

Ideal for individuals or small groups. Lay out the 5 animal group name cards at the top of the table in front of children, announcing each one as you do so to ensure that reading ability does not hinder this task.

Place the photo cards face up on the table in front of the children and ask them to help you shuffle them around.

Ask the children to pick a card showing an animal they know. They should be able to name it and place it with the correct animal group card.

They should be able to explain how they matched each animal to its group. For example: I know this pigeon is a bird because it has wings and can fly.

Continue this activity with five or six more cards of the children's choosing.

Then ask them to choose (from the unused cards, according to those remaining) two more fish, two reptiles, two amphibians, three more birds and three more

mammals. Ask the children to name each animal as they choose it.





Questions to check understanding

What is this animal called? Which animal group does it belong to? How do you know? Can you find another mammal / bird / amphibian / reptile / fish?

Curriculum statement is achieved if the child:

Can select and name at least two mammals, birds, fish, amphibians and reptiles and give a correct reason for choosing them, according to observable features or known behaviour: for example chooses a plaice when asked to find a fish and says they know it is a fish because it has fins and lives in water.



Amphibians	Fish	Reptiles
Birds	Mammals	
		

SNAPSHOT ASSESSMENT: NAME THAT ANIMAL!

Year group: 1 | Module: OCW: Animal Antics. Whole module | Module 2: Looking at Animals. Lessons 1, EL1, EL2, EL3



SNAPSHOT ASSESSMENT: NAME THAT ANIMAL!

Year group: 1 | Module: OCW: Animal Antics. Whole module | Module 2: Looking at Animals. Lessons 1, EL1, EL2, EL3



SNAPSHOT ASSESSMENT: DESCRIBE AND COMPARE

Year group: 1 | Module 2: Looking at Animals. Lessons 2, 3, 4, 5, 7

Curriculum statement:

Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).

Activity instructions

Work with a group of two or three children. Lay out the photo cards in front of the children. Remind them that they have seen them before.

Place each photo card in one of the five animals groups (fish, amphibians, reptiles, amphibians, mammals) saying aloud which group you are placing it in as you do so, but not why.

Ask the children to select and describe one animal from each group.

Ask them to name one of the animals. Ask what they can see, and what they know, about it the animal. For example: *This is an eagle. It has a strong, sharp beak, sharp claws and feathers.*

After the children have described the animals, invite a child to choose two more animals – each from a different group. Ask them about the differences and similarities between the two animals.

Questions to check understanding

Do fish have fingers? Do amphibians have wings? Do reptiles have feathers? Do birds have fur? Do mammals have beaks? How are the lion and the alligator similar? How are they different?

Curriculum statement is achieved if the child:

Is able to describe common observable features of at least five animals and compare the structure of two from different groups.



Amphibians

Fish

Reptiles

Birds

Mammals



SNAPSHOT ASSESSMENT: DESCRIBE AND COMPARE

Year group: 1 | Module 2: Looking at Animals. Lessons 2, 3, 4, 5, 7



SNAPSHOT ASSESSMENT: DESCRIBE AND COMPARE

Year group: 1 | Module 2: Looking at Animals. Lessons 2, 3, 4, 5, 7



SNAPSHOT ASSESSMENT: WHO EATS WHAT?

Year group: 1 | Module 2: Looking at Animals. Lesson 6, EL4

Curriculum statement:

Identify and name a variety of common animals that are carnivores, herbivores and omnivores.

Activity instructions

Work with a group of two or three children. Tell them you are going to talk about what different animals eat. Show children the three heading cards, carnivore, herbivore and omnivore.

Lay the three hoops out on the floor so the children can clearly see them and read each heading card out as you place it in a hoop so that reading ability does not hinder the task.

Give the children the twelve food picture cards and ask them to match each food type to an animal group in a hoop. Ensure this is correct before proceeding with the snapshot activity.

Place all the animal photo cards face up on the floor and ask the children to take turns to pick up a picture of an animal they know and tell you what it is called. Ask what the animal eats. Then ask them to put it in the hoop that has its food. For example: *This is a panda. It only eats the leaves of the bamboo plant, so it is a herbivore because...*

They should stop after they have two to three animal cards correctly placed in each hoop.

Questions to check understanding

What does this animal eat? Which group can we put this animal in? Can you find another carnivore / herbivore / omnivore?

Curriculum statement is achieved if the child:

Can match at least two animals to each set correctly, and name them.



<p>leaves</p>	<p>leaves</p>	<p>grass</p>
<p>grass</p>	<p>nuts</p>	<p>nuts</p>
<p>leg of lamb</p>	<p>leg of lamb</p>	<p>whole chicken</p>
<p>whole chicken</p>	<p>fish</p>	<p>fish</p>

SNAPSHOT ASSESSMENT: WHO EATS WHAT?

Year group: 1 | Module 2: Looking at Animals. Lesson 6, EL4



dog



rat



owl



lion



dragonfly



polar bear



cow



horse



caterpillar



squirrel



rabbit



sheep



human



badger



chicken



frog



brown bear



hedgehog



SNAPSHOT ASSESSMENT: WHO EATS WHAT?

Year group: 1 | Module 2: Looking at Animals. Lesson 6, EL4



Omnivore

Carnivore

Herbivore

SNAPSHOT ASSESSMENT: BODY PARTS

Year group: 1 | Module 3: Using Our Senses. Whole module

Curriculum statement:

Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

Activity instructions

Work with groups of three children.

Give the children an outline of the human body. Ask them to listen as you say the name of a body part and to draw a ring round that part: head, neck, arm, elbow, hands, legs, knees, feet, face, ears, eyes, nose, mouth. If appropriate they could then label each part that they have ringed.

Read and show the children each sense label card in turn and ask them to point to the part of their body that they use for this sense. Children need to answer all five correctly.

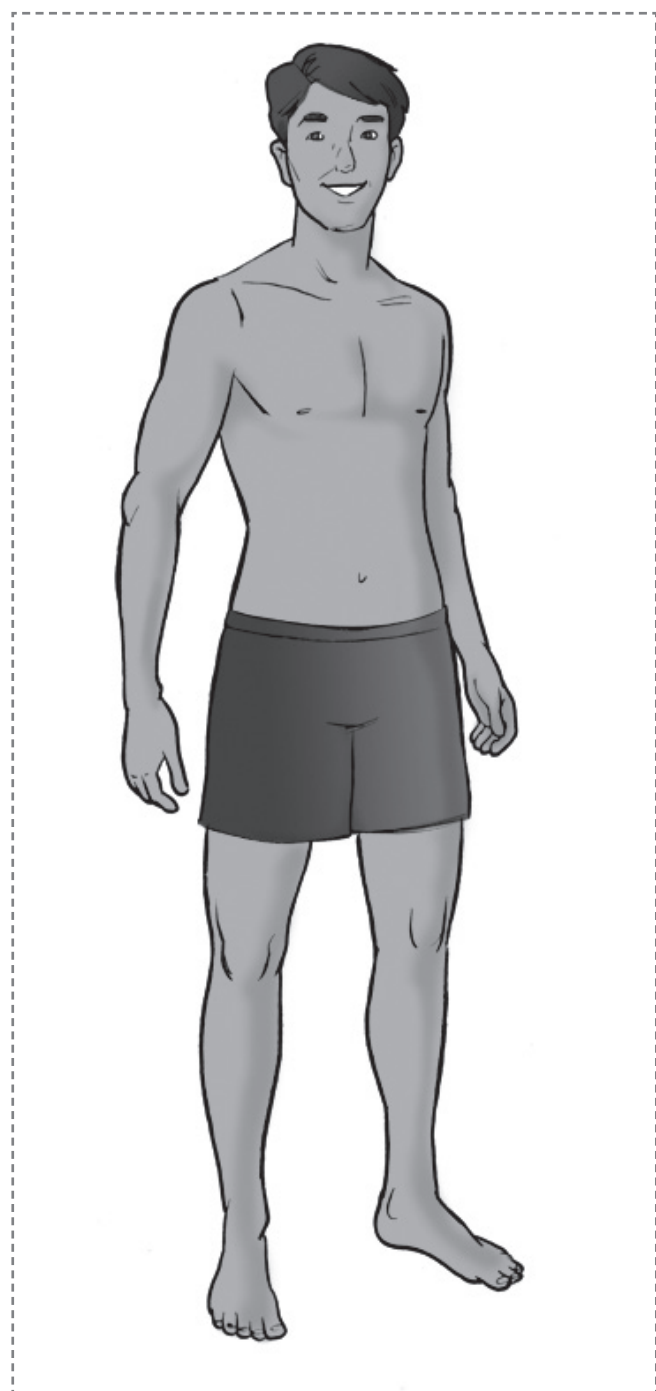
They might also be able to say that this part of their body sends a message to their brain.

Questions to check understanding

Where is your elbow? Which part of your body is between your foot and your leg? Which body part helps us with taste? Which sense does your skin help with?

Curriculum statement is achieved if the child:

Is able to name or identify at least 10 basic body parts and identify those associated with each sense.



seeing

hearing

feeling

tasting

smelling

SNAPSHOT ASSESSMENT: WHAT IS IT MADE OF?

Year group: 1 | Module 4: Everyday Materials. Lessons 1, 2, 3, 4

Curriculum statement:

Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock

Resources

Samples (not objects) of different woods, plastic, glass, metals, rocks, brick, papers, fabrics and water (as in lessons 1–4)

Sticky notes labelled with the different materials (one set per child)

Activity instructions

This can be carried out with an individual or a small group of children.

Show the samples of material to the children. Ask individuals to:

- find a piece of wood / metal / plastic
- name a material selected by you
- sort the materials into sets of the same kind.

If any material is wrongly sorted, select some correct, as well as the incorrect, material and ask: *Is this material the same as all the others in the set? Is it like these?* (Point to other sets in turn.)

Provide each child with sticky labels for a material (one material per child). Read the labels with the children. Ask each child to stick the notes on objects in the classroom made from that material. If working with a group, tell them each to choose different objects. Repeat this for the other materials. You may need to bring additional objects into the classroom.

Questions to check understanding

What is the same about all these pieces of wood / fabric etc? What is different? What helped you to decide that they were all the same material? What helped you to decide where to put the sticky note? Can you see any other objects made from the same material? What material is this object made from? Can you find an object made from more than one material (child's choice or specify the materials)?

Curriculum statement is achieved if the child:

Can name the material samples. Can identify all samples of a particular material. Can give observable similarities between samples that help to identify them as the same material. Can label an object with the material it is made from. Can name both materials used to make an object made from two different materials.

SNAPSHOT ASSESSMENT: MATERIALS AND OBJECTS

Year group: 1 | Module 4: Everyday Materials. Lessons 5, 6

Curriculum statement:

Distinguish between an object and the material from which it is made.

Resources

Assemble a collection of different objects made from wood, metal, plastic, fabric, glass, rock and paper or card. Include some categories and objects that are familiar from lesson 6, and some that are not. Some objects should be made from more than one material.

Suggested categories:

- Spoons – wood, metal, plastic and mixed
- Bowls – plastic, metal, glass, paper, wood, rock (mortar or decorative)
- Boxes – card, plastic, metal, glass (decorative), wood (some mixed e.g. with metal screws or staples)
- Bottles/jars – glass, plastic, metal (some with lids made from a different material)
- Toys – wood, metal, plastic, fabric, mixed
- Bags – fabric, paper, plastic

Activity instructions

This activity can be carried out with an individual child or a small group. Additional objects and categories will be needed if there are more children involved.

Ask children to select objects according to which aspects of the statement you need to assess: a spoon, a toy, for example). Ask them to find something made from plastic (or wood, metal, etc.). Then ask them to find something else made from the same material.

Ask the children to find a specific object made from a named material: for example, a glass bottle, a paper bag. Ask children some direct questions, such as: *How many different spoons (or toys, bowls etc.) can you find? What materials are they made from?*

What different objects are made from wood (or plastic, glass etc.)?

Can you find an object made from more than one material? What are the materials?

Can you find an object made from e.g. metal and glass?

Questions to check understanding

What is this object? What is this material?

What can a spoon be made from? What can a box be made from?

What can a bottle be made from?

Can you find an object made from more than one material? What is it? What are the materials?

Can you find an object made from wood and plastic (or another combination represented in the collection)?

Curriculum statement is achieved if the child:

Identifies the same material when made into different objects. Identifies objects in the same category when made from different materials. Identifies an object by material and category, for example, a plastic bottle. Names the different materials in an object that is made from more than one material.

SNAPSHOT ASSESSMENT: WHAT ARE MY PROPERTIES?

Year group: 1 | Module 4: Everyday Materials. Lessons 7, 8, 9, 10, EL1, EL2

Curriculum statement:

Describe the simple physical properties of a variety of everyday materials.

Resources

Samples of materials used during this module - choose according to the properties to be assessed

Activity instructions

This can be carried out with an individual or small group. Choose resources and questions according to the additional assessment information you require for each child. It is unlikely that you will need to check understanding of all the properties for any individual.

Give children three property cards and read the words aloud. Tell them to choose a material that is a good example of each property and place it next to the card. Repeat this for other properties, as required. Ask if any material could be put with more than one card.

Choose a material and ask the child what properties it has. Repeat for other materials.

Ask the children to find materials with certain properties. For example, a hard material that is not shiny, or a see-through material that is not stiff.

Questions to check understanding

Which sense did you use to help you to choose a material with this property? Did you need to do anything with the material to check if it had this property? How do you know that this material is waterproof / not waterproof / absorbent / not absorbent? What could you do to check? How can you tell if a material is hard?

Curriculum statement is achieved if the child:

Can choose a material that has the named property. They can name several properties of a given material. Can say whether the property is identified by looking or feeling. Can say or demonstrate how to test for properties where necessary, for example, looking through it to see if it is transparent, pulling it to test if it is stretchy, dropping water onto it to test if it is waterproof, scratching it to check if it is hard.



hard	soft	rough
smooth	shiny	dull
heavy	light	transparent (see-through)

SNAPSHOT ASSESSMENT: WHAT ARE MY PROPERTIES?

Year group: 1 | Module 4: Everyday Materials. Lessons 7, 8, 9, 10, EL1, EL2



opaque (not see-through)	bendy	not bendy
stretchy	stiff	waterproof
not waterproof	absorbent (soaks up water)	not absorbent (does not soak up water)

SNAPSHOT ASSESSMENT: COMPARING AND GROUPING MATERIALS

Year group: 1 | Module 4: Everyday Materials. Lessons 3, 4, 8, 9, 10, EL1, EL2

Curriculum statement:

Compare and group together a variety of everyday materials on the basis of their simple physical properties.

Resources

Samples of materials, some used during the module and others that are less familiar

3 sorting circles or hoops

Activity instructions

To be carried out on an individual basis.

Label two hoops with properties cards (not opposites). Read the labels with the child. Tell the child to select as many materials as they can to make a group for each property. If a material fits in more than one category you may need to prompt the child to overlap the sets. Question them about the properties of the materials in the sets, including those in the area of overlap. Choose one of the sets and tell the child to make another set of materials that do not have this property and then to choose a label for the new set. Read the other labels with the child, if necessary.

Repeat for other properties as required.

For a quick check of knowledge of opposites, ask the child to pair all the cards to show which properties are opposites. If necessary, demonstrate this with an obvious pair of opposites: for example absorbent and not absorbent.

Questions to check understanding

What property do all the materials in this set have? Where do we put a material that has both properties? What is the same about these materials and what is different (comparing a material in the overlap of the sets and one in only one of the sets)? Can we find a material that has both these properties? Why not (for sets that show pairs of opposites)? Which property is the opposite of [...]? Are these two properties opposites?

Curriculum statement is achieved if the child:

Can sort materials into two sets according to properties. Can compare materials giving differences and similarities in properties. Can select materials with opposite properties. Can match properties with their opposites.



rough	smooth	shiny	dull
heavy	light	transparent	opaque
bendy	not bendy	stretchy	stiff
waterproof	not waterproof	absorbent	not absorbent

SNAPSHOT ASSESSMENT: NAME THAT LIVING THING!

Year group: 2 | Module: OCW Lesson 1

Curriculum statement:

Identify and name a variety of plants and animals in their habitats, including micro-habitats.

Activity instructions

Work with a group of three children. Tell them you are going to play a naming game about plants and animals. Show them the 'plant' and 'animal' labels and read these with them. Shuffle all the cards and place them face down. Tell the children to take turns to turn over a card. Ask them to name the living thing in the picture, and to describe where it lives. Remind them of the terms used to describe habitats, including micro-habitats: e.g. garden, under a rock or stone, leaf litter, pond, leaves. Then they should put the card into the correct set: plant or animal.

Continue until there are between six and eight correct in each pile.

Questions to check understanding

What is this? Is it a plant or an animal? Have you seen it somewhere outdoors? Where? How did you find out what it was called? What do we call its habitat?

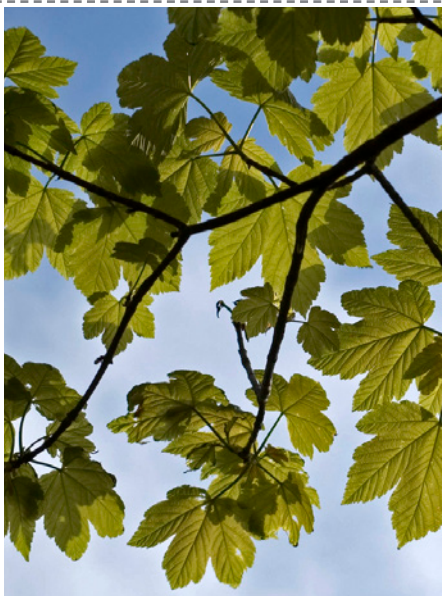
Curriculum statement is achieved if the child:

Can name and identify six to eight plants and animals that are familiar to them, referring to their habitat in their identification.



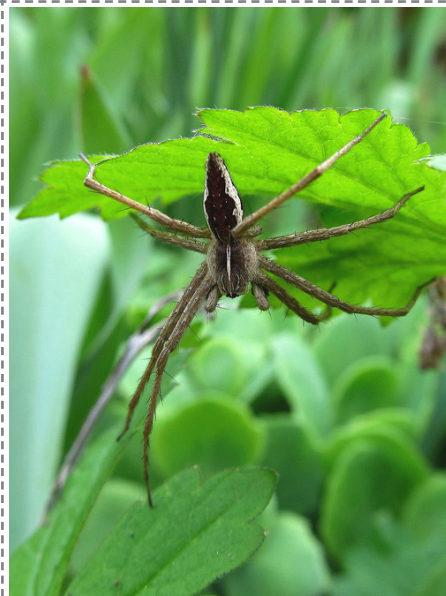
plant

animal



SNAPSHOT ASSESSMENT: NAME THAT LIVING THING!

Year group: 2 | Module: OCW Lesson 1



SNAPSHOT ASSESSMENT: NAME THAT LIVING THING!

Year group: 2 | Module: OCW Lesson 1



SNAPSHOT ASSESSMENT: WHO LIVES HERE?

Year group: 2 | Module: OCW. Lesson 2 | Module 1: What Is In Your Habitat? Lessons 1, 3

Curriculum statement:

Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.

Activity instructions

Present the children with the image of a rural scene and tell them you are going to talk about what lives there and why. Ask: *What might live there?*

Initially let the children suggest their own ideas. If they need some prompts, provide the pictures of animals and ask which of these might live there.

Expected responses include living things you would typically find in a hedgerow, tree, ditch or pond: birds, frogs (and tadpoles), hedgehogs, butterflies (and caterpillars), snails, bees, worms, rabbits, foxes. For each response, ask: *Why would they live here?* Expected responses include reference to food source and suitability of living conditions (for survival or for laying eggs or keeping their young safe: for example, young rabbits in a burrow, young birds in a nest, insect eggs on plants).

You should expect at least three correct answers.

If you have not yet provided the picture prompts, do so now.

Ask: *What would not live here and why?*

Expected responses would refer to food source and suitability of living conditions including: *Penguin, because the foods they eat live in the sea.* You should expect at least two correct answers.

Questions to check understanding

What would live here and why? What is here that these animals need? What would not be able to survive here? What difference would it make if the tree was not there?

Curriculum statement is achieved if the child:

Can identify what makes a habitat suitable for a living thing, refers to basic needs in their responses and can give some explanation linked to dependency.



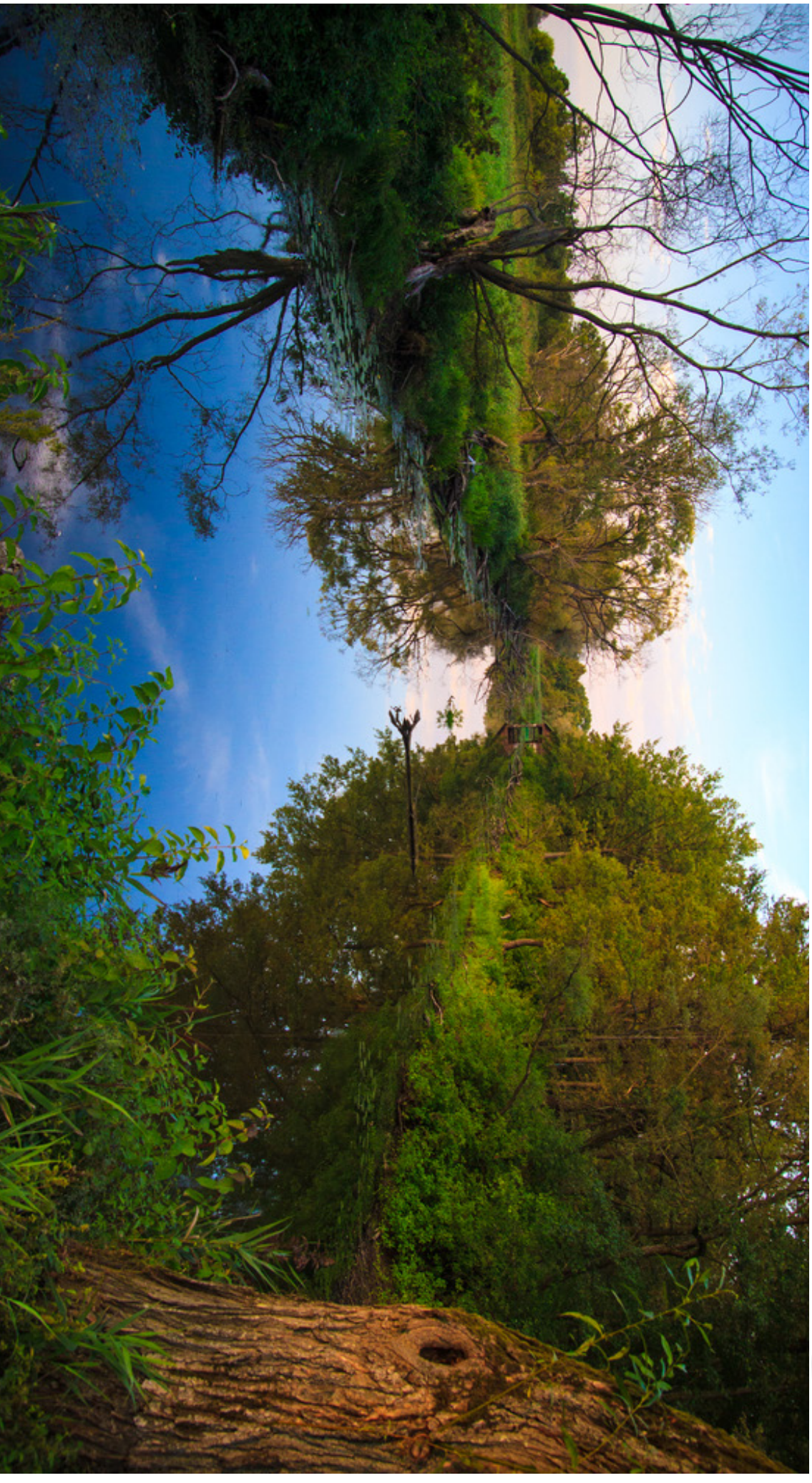
SNAPSHOT ASSESSMENT: WHO LIVES HERE?

Year group: 2 | Module: OCW. Lesson 2 | Module 1: What Is In Your Habitat? Lessons 1, 3



SNAPSHOT ASSESSMENT: WHO LIVES HERE?

Year group: 2 | Module: OCW. Lesson 2 | Module 1: What Is In Your Habitat? Lessons 1, 3



SNAPSHOT ASSESSMENT: WHO EATS WHAT?

Year group: 2 | Module: OCW. Lesson 3 | Module 1: What Is In Your Habitat? Lesson 2

Curriculum statement:

Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.

Activity instructions

This is for work with groups of two to four children. Tell them that you are going to talk about what animals eat. Lay out the picture cards face up. Ask the children to find two cards that show an animal and what it eats.

Ask the children to find two cards that show an animal and what it eats, and to place the cards on the table. Then, ask them to place an arrow pointing from the food to the animal that eats it. Explain to the children that they have made part of a food chain.

Ask them to look for a card that goes either at the beginning or at the end of this food chain, and to add another arrow pointing from the food to the animal that eats it.

Expected responses include:

- berry mouse owl
- leaf caterpillar bird
- seaweed hermit crab lobster.

Ask the children how each animal (not plant) gets its food and how it eats. They should use actions, words and the photo of the animal to help with their explanation.

It is not essential for the food chains to start with a green plant at this stage.

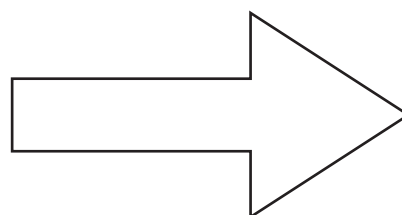
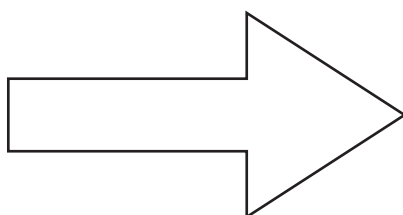
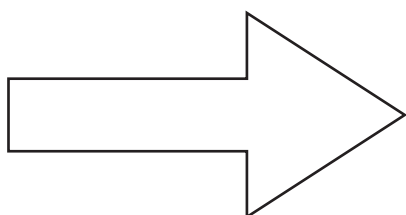
Repeat at least twice.

Questions to check understanding

What does this animal eat? How do you know? Where would it find its food? Where might this plant grow? What might eat it?

Curriculum statement is achieved if the child:

Can name some of the foods of at least three animals, say whether the foods are plants or animals, how the animals get their food and how they eat it. Can use a food chain with three steps to make the links between foods and eaters (and do this for at least 2 different examples of food chains). In building a simple food chain, can use arrows pointing to the animal that does the eating.



SNAPSHOT ASSESSMENT: WHO EATS WHAT?

Year group: 2 | Module: OCW. Lesson 3 | Module 1: What Is In Your Habitat? Lesson 2



SNAPSHOT ASSESSMENT: ALL GROWN UP!

Year group: 2 | Module: OCW. Lesson 4 | Module 6: Growing Up. Lessons 2, 3, 4, EL1, EL2

Curriculum statement:

Notice that animals, including humans, have offspring that grow into adults

Activity instructions

Cut out the human life cycle cards shown below. Lay the cards out in front of the children and ask them which comes first in a human's life. Then ask them to add the others, in order.

Point out the picture of the man and pregnant woman and ask: *What is going to happen?* Ask the children to rearrange the cards to show this. Repeat this activity using a set of life cycle cards from OCW lesson 4, depending on which animal you used: for example, frog, butterfly or chicken.

Questions to check understanding

Which comes first? What happens to the young over time? How are human babies like adults? How are they different? How are young frogs / butterflies / chickens like the adults? How are they different?

Curriculum statement is achieved if the child:

Can place life cycle of a human (or other animal) in chronological order. When prompted, can use a circle to show that the adults might, in turn, go on to produce young.



SNAPSHOT ASSESSMENT: GROWING PLANTS

Year group: 2 | Module: OCW. Lesson 6, 7 | Module 2: The Apprentice Gardener. Lessons 1–5, 7, 8, 9, EL1, EL4

Curriculum statement:

Observe and describe how seeds and bulbs grow into mature plants.

Activity instructions

Ideal for use with individual or pairs of children.

Give the child a muddled up set of 'growing plants' cards. Tell them to look at the cards carefully and to put the cards in order. Ask them to tell the story of the plant's life.

Questions to check understanding

What do you think is the right order for the cards (to show the way a plant grows from a seed or bulb)? Which card shows what happens first? What can you see above ground? What will be happening below ground at the same time? What happens next? How does the plant change? Which parts are growing now? Point to a flower bud and flower (as appropriate). What's growing here? What are the flowers for? What happens next? Check that children use the correct vocabulary throughout, by asking them to name parts, such as the shoot, stem, leaf, flower bud, flower, petal, root, seed, bulb, etc.

Curriculum statement is achieved if the child:

Can distinguish bulbs from seeds and explain that both grow into plants over time. Can describe how plants that they have grown themselves have changed over time, naming parts of each plant, as appropriate. Can state that seeds and bulbs need water to start them growing (but don't need light) and that plants continue to need water as they grow to maturity. Can describe the growth of a seed or bulb, starting with a root emerging from a seed or a shoot and roots growing from a bulb. Can describe the gradual growth of the plant over time, and the changes that take place with the development and growth of leaves, flowers and seeds.

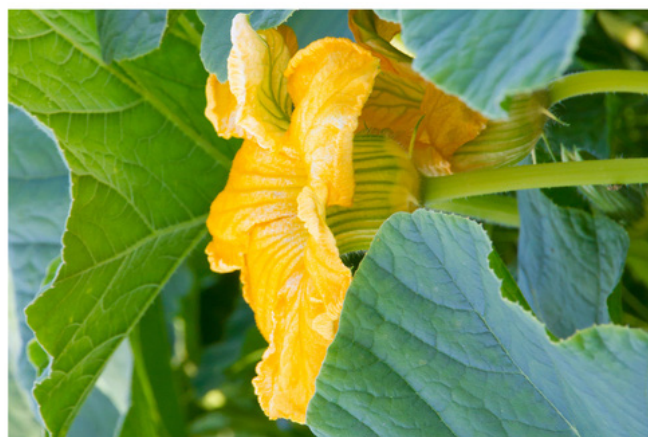
SNAPSHOT ASSESSMENT: GROWING PLANTS

Year group: 2 | Module: OCW. Lesson 6, 7 | Module 2: The Apprentice Gardener. Lessons 1–5, 7, 8, 9, EL1, EL4



SNAPSHOT ASSESSMENT: GROWING PLANTS

Year group: 2 | Module: OCW. Lesson 6, 7 | Module 2: The Apprentice Gardener. Lessons 1–5, 7, 8, 9, EL1, EL4



SNAPSHOT ASSESSMENT: PLANT DOCTOR

Year group: 2 | Module 2: The Apprentice Gardener. Lessons 6, 10, EL2, EL3

Curriculum statement:

Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

Activity instructions

Ideal for use with groups of up to six children.

Show the children matched pairs of healthy / unhealthy plant photo cards one pair at a time.

Ask them to describe what makes them think that each plant is / is not healthy. Encourage the children to suggest what the unhealthy plants might need in order to improve their condition and make them healthier.

Tell the children that the 'Plant doctor' has made some suggestions about making unhealthy plants healthier. Whisper that some of the suggestions are – you think – a bit silly! Put the three heading cards labelled 'sensible', 'silly' and 'not sure' on the table. Ask the children to look at the Plant Doctor's suggestion cards and to decide which are sensible, which are silly and which they're not sure about. They should put each suggestion card by the heading that they think is correct, and say why they think that it is sensible or silly. or they are not sure.

Questions to check understanding

Is this plant a healthy plant or an unhealthy plant? Point to an unhealthy plant – what makes you think this plant is unhealthy? Point to a healthy plant – what makes you think this plant is healthy? What does an unhealthy plant need to make it healthier?

Curriculum statement is achieved if the child:

Can state that plants need light, water and the right temperature in order to grow and stay healthy. Can give examples (using images on cards as prompts or based on their learning) of what happens when a plant has not had sufficient water, light, a suitable temperature (i.e. is far too hot or far too cold). Can sort the majority of the statements correctly.



Plant doctor says...

SENSIBLE	SILLY	NOT SURE
Give your plant a bucket of water each day.	Put your plant in the fridge to keep it cool.	Give your plant enough water to make soil damp around roots.
Put your plant in a box and close the lid.	Give your plant plenty of orange juice to keep it healthy.	Stand your plant on the window shelf in the light.
Grow your plant in the greenhouse so that it is kept warm.	Plant your plant in the garden and water it regularly.	Put your plant near a radiator to keep it warm.
Water your plant with warm water to keep it warm.	Shine a bright light on your plant all night to give it plenty of light.	Check the plant each day to make sure the soil isn't dry.

SNAPSHOT ASSESSMENT: PLANT DOCTOR

Year group: 2 | Module 2: The Apprentice Gardener. Lessons 6, 10, EL2, EL3



SNAPSHOT ASSESSMENT: PLANT DOCTOR

Year group: 2 | Module 2: The Apprentice Gardener. Lessons 6, 10, EL2, EL3



SNAPSHOT ASSESSMENT: PLANT DOCTOR

Year group: 2 | Module 2: The Apprentice Gardener. Lessons 6, 10, EL2, EL3



SNAPSHOT ASSESSMENT: PLANT DOCTOR

Year group: 2 | Module 2: The Apprentice Gardener. Lessons 6, 10, EL2, EL3



SNAPSHOT ASSESSMENT: PLANT DOCTOR

Year group: 2 | Module 2: The Apprentice Gardener. Lessons 6, 10, EL2, EL3



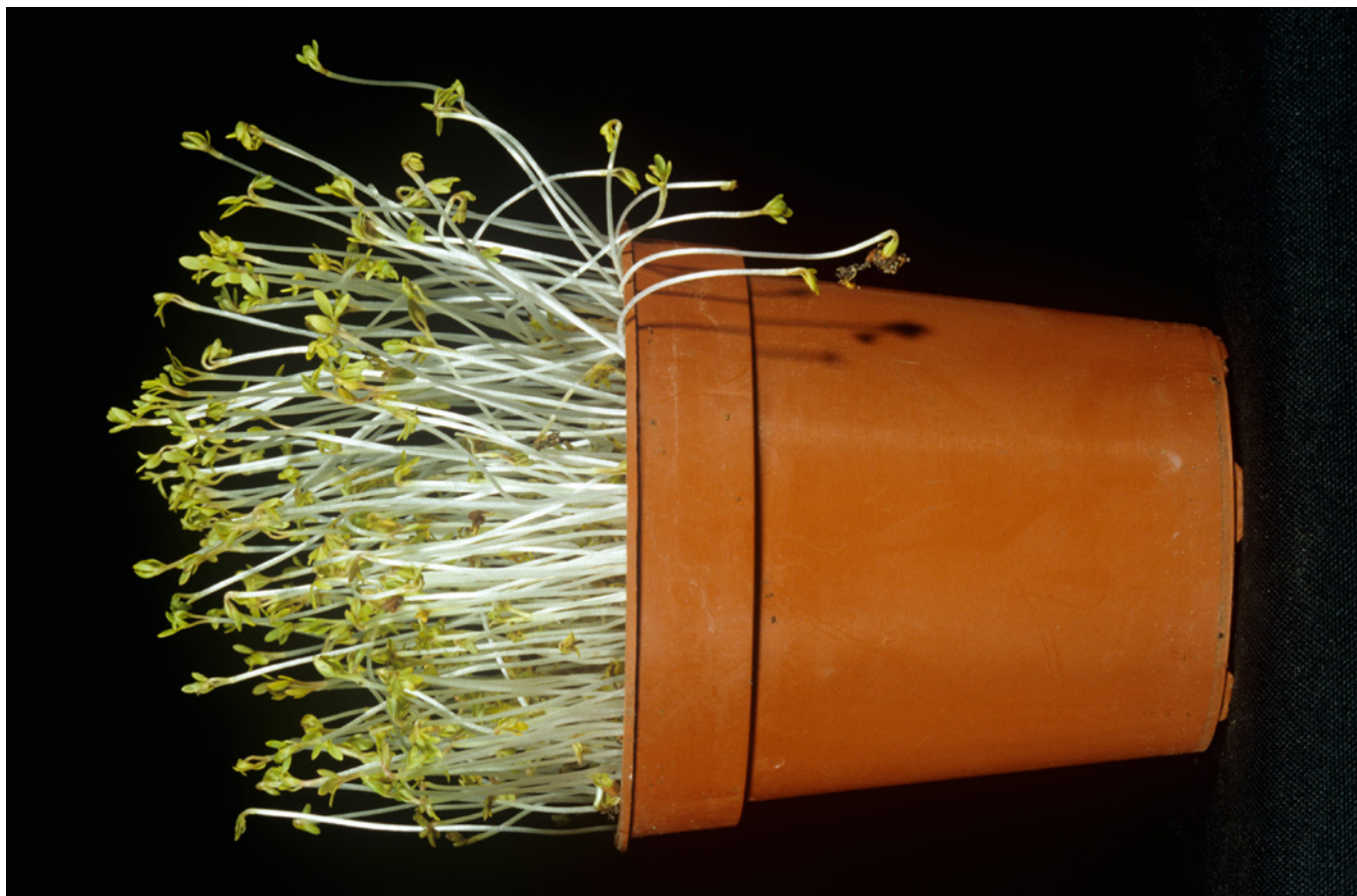
SNAPSHOT ASSESSMENT: PLANT DOCTOR

Year group: 2 | Module 2: The Apprentice Gardener. Lessons 6, 10, EL2, EL3



SNAPSHOT ASSESSMENT: PLANT DOCTOR

Year group: 2 | Module 2: The Apprentice Gardener. Lessons 6, 10, EL2, EL3



SNAPSHOT ASSESSMENT: PLANT DOCTOR

Year group: 2 | Module 2: The Apprentice Gardener. Lessons 6, 10, EL2, EL3



SNAPSHOT ASSESSMENT: ODD ONE OUT

Year group: 2 | Module 1: What is in Your Habitat? L1

Curriculum statement:

Explore and compare the differences between things that are living, dead, and things that have never been alive.

Activity instructions

Tell the children that you are going to talk to them about things that are alive, were once alive or that have never lived.

Show them card strip three and ask them to name the objects, helping where necessary. Ask which ones are alive. Ask which is the odd one out because it used to be alive but is not alive now. Ask how they know that it was once alive and how they know it isn't alive now.

Tell the children that they are going to look at some more strips of pictures that have an odd one out, but that this might be the only one that is alive, the only one that used to be alive, or the only one that has never been alive.

Show two more card strips in turn and check that the children know what each picture shows. Be aware that the berries are particularly challenging for children because they might perceive these as having once lived but not be aware that they contain seeds so should be classed as living.

Repeat this activity three times to ensure they are secure with this.

Finally, ask them to name another living thing, another that has once lived and another that has never lived. You may wish to remind them of the activities they carried out in lessons when they looked for habitats.

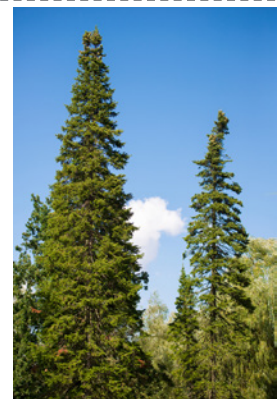
Questions to check understanding

Which of these are alive? How can you tell? Which one of these has been alive? How do you know?

Which one of these has never been alive? How do you know? How are these two different? How are these two the same?

Curriculum statement is achieved if the child:

Can identify living things, things that once lived and things that have never lived, and explain how they know.



SNAPSHOT ASSESSMENT: ODD ONE OUT

Year group: 2 | Module 1: What is in Your Habitat? L1



SNAPSHOT ASSESSMENT: WHICH MATERIALS ARE SUITABLE?

Year group: 2 | Module 3: Good Choices. Whole module | Shaping Up. Lessons 4, 5, 6

Curriculum statement:

Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.

Resources

Samples of materials: fabrics (including woollen, stretchy, waterproof and carpet); plastic (including transparent plastic bag type and rigid, coloured plastic); wood; foil; metal; card; slate (identified as rock); glass; wrapping paper.

Activity instructions

This can be carried out with an individual or small group.

Choose the image of the umbrella or leotard. Tell a child to find a material that would be suitable for making it. Ask them what properties the material has that make it suitable. Tell the child (or another child if working with a group) to choose another material that would be suitable. Ask: *What properties make this material suitable? Is it more or less suitable than the first material? Why?*

Choose another, less suitable, material. Ask: *Does this material have any properties that make it suitable? What are they? Does it have properties that make it unsuitable? What are they? What might happen if we used this material?*

Choose another image. Ask: *What property would a suitable material need to have? Tell the child to select all materials with that property. Ask them, or if working with a group, another child: Which of these is the most suitable? Why? Which is the least suitable? Why? Where might you see a [...] made from this material? What might be an advantage of choosing this material? Why might we choose this one instead?*

Questions to check understanding

See Activity instructions.

Curriculum statement is achieved if the child:

Can choose a suitable material for a purpose and say which properties make it suitable: for example, a stretchy, lightweight fabric that is not waterproof for a leotard. Can identify properties that make a material unsuitable for a purpose: for example, glass is waterproof but too heavy and breaks too easily for an umbrella. Can name different materials that an object can be made from and say which are suitable for how it will be used: for example, thin plastic for disposable forks or spoons; metal for forks and spoons to be washed and used over and over again. Can compare materials and decide, with reasons, which is most suitable: for example, plastic for bin liners because it is waterproof and can be quite strong; slate for a roof because it is hard, strong and waterproof. Can recognise advantages and disadvantages of some properties: for example, rubber is good for wellies because it is waterproof, but this keeps in sweat from your feet.



SNAPSHOT ASSESSMENT: WHICH MATERIALS ARE SUITABLE?

Year group: 2 | Module 3: Good Choices. Whole module | Shaping Up. Lessons 4, 5, 6



SNAPSHOT ASSESSMENT: WHICH MATERIALS ARE SUITABLE?

Year group: 2 | Module 3: Good Choices. Whole module | Shaping Up. Lessons 4, 5, 6



A bag to carry these in



SNAPSHOT ASSESSMENT: CHANGING SHAPE

Year group: 2 | Module 4: Shaping Up. Lessons 1, 2, 3, EL1

Curriculum statement:

Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Resources

Modelling clay or dough

Piece of rubber; block of wood; thin strip of wood; knitted fabric; pipe cleaner; elastic hairband; poster putty; string; soft, squashy sweet; rigid plastic; strip of paper; ribbon; rock.

Activity instructions

This is an activity for children to do individually.

Give each of the children a piece of modelling clay and ask them to do the following to it: squash, bend, twist and stretch.

Tell the children to select something else that can be squashed. If they are not sure, they should test the materials. Then tell them to find something that cannot be squashed. Ensure that each child can read the properties cards, and then ask them to choose cards to label the two items.

Repeat for bending, twisting and stretching.

If a child does not choose an elastic object for stretching or squashing, ask them to describe the properties of the hairband, sweet or rubber. Ask:

Does it go back into shape after being squashed or stretched or does it stay squashed / stretched?

Questions to check understanding

What do you do to test whether a material is flexible / stretchy etc? What happens to the clay when you stretch / squash / bend / twist it? What is the opposite of this property? What do you do to test whether a material is flexible / stretchy etc? How is elastic different from stretchy or squashy? How is stretchy different from squashy? With what actions can you change a flexible material? Which materials can't you change using any of the actions?

Curriculum statement is achieved if the child:

Can demonstrate squashing, bending, twisting and stretching. Can describe the result of each action: for example changes in length, thickness and shape. Can test materials and identify materials that can and cannot be changed by these actions. Can label materials as flexible, rigid, stretchy, squashy, elastic and stiff.



flexible	flexible	flexible	flexible
flexible	rigid	rigid	rigid
stretchy	stretchy	stretchy	elastic
elastic	elastic	squashy	squashy
squashy	stiff	stiff	stiff

SNAPSHOT ASSESSMENT: CARING FOR OURSELVES - EXERCISE

Year group: 2 | Module 5: Take Care. Lesson 3

Curriculum statement:

Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

Activity instructions

This activity is for individual children.

Place the photo in front of the child and tell them that you are going to talk about exercise.

Ask the child why they think we should exercise. You should expect to hear phrases such as: to make our heart beat faster; to make us stronger; to make us fitter.

Ask them what types of exercise they know of. You should expect to hear phrases such as: running; jumping; lifting.

Ask them when they might exercise. You should expect to hear phrases such as: playtime; PE lessons; walking to and from school; at the park.

Questions to check understanding

How often should we exercise? Why should we exercise? What is exercise for? Who should exercise? What types of exercise do you know?

Curriculum statement is achieved if the child:

Can describe the importance of daily exercise.

Can name some exercises and describe occasions when they exercise.



SNAPSHOT ASSESSMENT: CARING FOR OURSELVES - FOOD

Year group: 2 | Module 5: Take Care. Lesson 2

Curriculum statement:

Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

Activity instructions

This activity is for individual children.

Lay five different food cards out in front of the child and tell them that you are going to talk about eating the right amount of different types of food. Show the cards again one at a time and ask the child to name at least four different foods for each.

Show them each flashcard again and this time ask the child if they should eat plenty, some or a little of this type of food every day.

You should expect to hear: eat plenty of fruit and vegetables; eat plenty of bread, rice, pasta and starchy foods; drink some milk and eat some dairy foods; eat some meat, fish, eggs, beans and other non-dairy proteins; eat / drink a small amount of food and drink that is high in fat and sugar.

Questions to check understanding

How many pieces of fruit and vegetables should we eat every day? Which type of food should we eat least of? How many different food types are there? Can you name four types of dairy food?

Curriculum statement is achieved if the child:

Can describe the importance of the right proportions of different food types for humans, comparing the appropriate quantities of five different types of food.



fruit and vegetables

bread, rice, pasta
and potatoes

meat, fish, eggs,
beans

dairy

food and drink
that are high in fat
and sugar

SNAPSHOT ASSESSMENT: CARING FOR OURSELVES - HYGIENE

Year group: 2 | Module 5: Take Care. Lesson 4

Curriculum statement:

Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

Activity instructions

This activity is for individual children.

Show the child the photo and tell them that you are going to talk about hygiene.

Ask them what we need to do to keep ourselves clean and hygienic.

Expect at least four of the following:

- wash our hands (every time we go to the toilet and before meals)
- brush our hair (at least once a day)
- clean our teeth (with a soft toothbrush and toothpaste twice a day)
- having a bath or shower (once a day, and wash hair at least once a week with shampoo)
- change our underwear (daily)
- visit the dentist (at least once a year).

For each activity the children suggest, ask them to describe how often they should do it and what it might involve, such as using toothpaste with a toothbrush and cleaning teeth twice a day; washing hands every time you go to the toilet.

Questions to check understanding

Why is it important to be clean? How often should you brush your teeth? Why do we need to visit the dentist regularly?

Curriculum statement is achieved if the child:

Can describe the importance of at least four different types of hygienic activity.



SNAPSHOT ASSESSMENT: BASIC NEEDS

Year group: 2 | Module 6: Growing Up. Lessons 1, EL1

Curriculum statement:

Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).

Activity instructions

This activity is for a group of three or four children. Put the picture of a human (adult) on the table. Put the 'needs' cards in a pile face down on the table and turn over a card. Check that the children can read the caption / know what the picture shows and tell them that they are going to turn over the other cards in this set and decide whether the human needs what is written on the card to survive (stay alive). Tell a child to put the card by the picture if they think that the human needs it and would die without it. They then take turns to pick up a card and repeat. Notice if they omit any of the three basic needs or include any that are not essential for survival.

Repeat the activity for the other animals. Ask if all animals have the same needs. Tell the children to collect the cards that show what all animals need to stay alive, that they would die without.

Ask the children to look again at the other needs cards and to choose any that they think humans need but could stay alive without. Repeat for other animals.

Questions to check understanding

What would happen without this?

Would a human be able to live without it? What does a human need to survive? Do all animals need these? Can you think of an animal that doesn't need air / water / food?

Curriculum statement is achieved if the child:

When asked, can say that animals need air, water and food to survive. Can describe what happens without them. Can distinguish between 'needs for survival' and the kinds of 'needs' that help some animals to survive but that are not essential for life.

 <p>Love</p> 	<p>Water</p> 
<p>Family</p> 	<p>Warmth</p> 
<p>Air</p> 	<p>Money</p> 
<p>Shelter</p> 	<p>Food</p> 
<p>Clothes</p> 	<p>Medicine</p> 

SNAPSHOT ASSESSMENT: BASIC NEEDS

Year group: 2 | Module 6: Growing Up. Lessons 1, EL1



SNAPSHOT ASSESSMENT: WHAT IF? PLANT PARTS

Year group: 3 | Module: Our Changing World. Lessons 1, 3, 4 |

Module 1: How Does Your Garden Grow? Lessons 1, 2, 3, 4, 5, 6, 11, 12, EL1

Curriculum statement:

Identify and describe the functions of different parts of flowering plants: roots, stem / trunk, leaves and flowers.

Activity instructions

Ideal for use with between two and four children.

Show children the plants / images of plants one at a time.

Encourage them to describe and name parts they notice, for example, roots, stem, trunk, leaves and flowers. Ask about the jobs that the different parts of each plant do. The children might also describe how the parts differ between plants. Ask some, or all of the 'What if...?' questions.

Questions to check understanding

What parts do these plants have? Do they all have flowers / stems / leaves? What do the roots do? What do the flowers do? What does the stem or trunk do? What do the leaves do? How is a cactus different from the other plants? What do you think the thick stem / tough skin / prickles do?

Curriculum statement is achieved if the child:

Can name the main parts of a plant. Can describe how parts of plants vary but do the same jobs, for example, stem / trunk, the roots of a seedling and of a carrot or dandelion plant. Can describe how a plant may be affected by the removal of one part, for example, the flowers or the roots.



What if a plant had no roots?

What if a plant had no stem?

What if a plant didn't produce flowers?

What if a plant had a
thin / floppy / broken stem?

What if a plant had no leaves?

SNAPSHOT ASSESSMENT: WHAT IF? PLANT PARTS

Year group: 3 | Module: Our Changing World. Lessons 1, 3, 4 |

Module 1: How Does Your Garden Grow? Lessons 1, 2, 3, 4, 5, 6, 11, 12, EL1



SNAPSHOT ASSESSMENT: WHAT IF? PLANT PARTS

Year group: 3 | Module: Our Changing World. Lessons 1, 3, 4 |

Module 1: How Does Your Garden Grow? Lessons 1, 2, 3, 4, 5, 6, 11, 12, EL1



SNAPSHOT ASSESSMENT: WHAT IF? PLANT PARTS

Year group: 3 | Module: Our Changing World. Lessons 1, 3, 4 |

Module 1: How Does Your Garden Grow? Lessons 1, 2, 3, 4, 5, 6, 11, 12, EL1



SNAPSHOT ASSESSMENT: WHAT IF? PLANT PARTS

Year group: 3 | Module: Our Changing World. Lessons 1, 3, 4 |

Module 1: How Does Your Garden Grow? Lessons 1, 2, 3, 4, 5, 6, 11, 12, EL1



SNAPSHOT ASSESSMENT: WHAT IF? PLANT PARTS

Year group: 3 | Module: Our Changing World. Lessons 1, 3, 4 |

Module 1: How Does Your Garden Grow? Lessons 1, 2, 3, 4, 5, 6, 11, 12, EL1



SNAPSHOT ASSESSMENT: WHAT IF? PLANT PARTS

Year group: 3 | Module: Our Changing World. Lessons 1, 3, 4 |

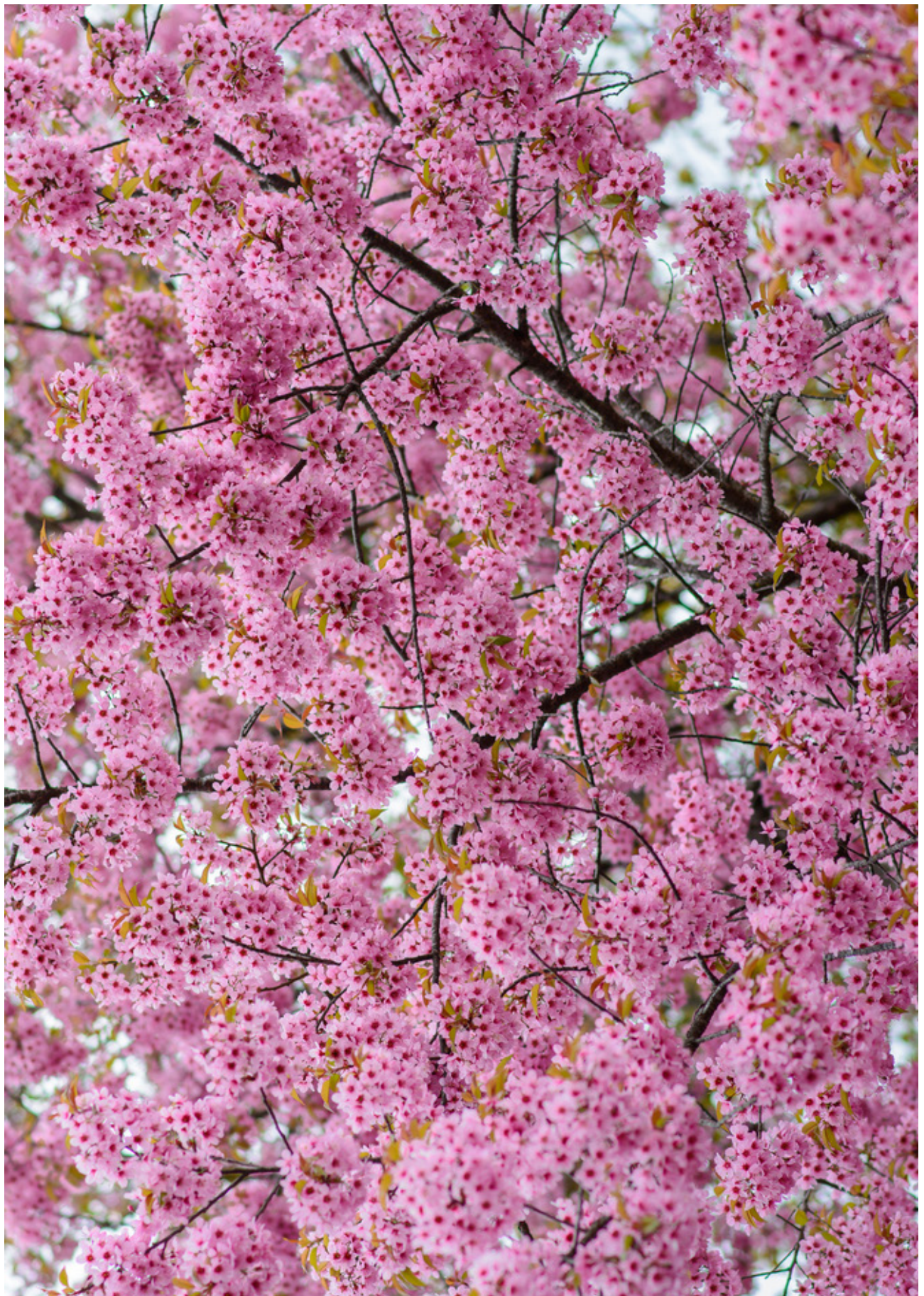
Module 1: How Does Your Garden Grow? Lessons 1, 2, 3, 4, 5, 6, 11, 12, EL1



SNAPSHOT ASSESSMENT: WHAT IF? PLANT PARTS

Year group: 3 | Module: Our Changing World. Lessons 1, 3, 4 |

Module 1: How Does Your Garden Grow? Lessons 1, 2, 3, 4, 5, 6, 11, 12, EL1



SNAPSHOT ASSESSMENT: WHAT IF? PLANT PARTS

Year group: 3 | Module: Our Changing World. Lessons 1, 3, 4 |

Module 1: How Does Your Garden Grow? Lessons 1, 2, 3, 4, 5, 6, 11, 12, EL1



SNAPSHOT ASSESSMENT: WHERE SHALL WE PLANT OUR TREE SEEDLINGS?

Year group: 3 | Module: Our Changing World. Lessons 2, 6, 7, 8

Curriculum statement:

Explore the requirements of plants for life and growth (air, light, water, nutrients from soil and room to grow) and how they vary from plant to plant.

Activity instructions

Ideal for use with a group of up to six children.

Show children the cartoon and read out the question and statements, as necessary. Explain that the children in the cartoon are trying to decide where to plant their tree seedlings. Tell the children to think about their ideas. Allow a moment or two then ask them which ideas they agree with and which they disagree with, and why.

Questions to check understanding

Which of the children's ideas do you agree with? Which do you disagree with? What makes you think that is wrong / right? Would a tree have different needs from other plants? Where do you think is the best place of all to plant the tree seedlings?

Curriculum statement is achieved if the child:

Can identify that young trees need: light and room to grow and food (so away from other trees, buildings and other structures; ample water supply (from rain, so not near a wall or fence); suitable soil).

SNAPSHOT ASSESSMENT: WHERE SHALL WE PLANT OUR TREE SEEDLINGS?

Year group: 3 | Module: Our Changing World. Lessons 2, 6, 7, 8

Where shall we plant our tree seedlings so that they will grow the best they possibly can?



SNAPSHOT ASSESSMENT: FLOWERING PLANT LIFE CYCLES

Year group: 3 | Module: Our Changing World. Lesson 5 | Module 1: How Does Your Garden Grow? Lessons 7, 8, 9, 10, EL2, EL3

Curriculum statement:

Explore the role that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Activity instructions

Ideal for use with two to four children.

Tell children that you are going to ask them about the life cycle of flowering plants. Place a header card a 'Life cycle of a flowering plant' on the table. Beneath it add the question card 'What are the main stages of the life cycle of flowering plants?' Allow time for responses, then add the five 'stages' cards in random order: 'germination', 'growth', 'pollination', 'seed formation', 'seed dispersal'. Ask the children to put the cards in order beneath the question card. Add the question card 'What would happen if a stage of the life cycle were missing?' Ask children to share their ideas.

Questions to check understanding

What is pollen for? How are flowers pollinated? What makes insects want to visit flowers? What if pollination didn't happen?

Where are seeds made in a flowering plant? Where are the seeds in, for example, an apple; a runner bean; a sunflower plant?

How can seeds be dispersed? How might the seed be dispersed in, for example, an apple; a conker / horse chestnut; a dandelion seed head; a poppy seed head?

Curriculum statement is achieved if the child:

Can say that the flower is where a plant's seeds are formed.

Can identify seeds of at least four familiar flowering plants, for example: apples; horse chestnut; dandelion.

Can sequence the life cycle stages of a flowering plant.

Can describe how flying insects pollinate flowers.

Can describe at least two different methods of seed dispersal, for example, on an animal or through its digestive system; by wind; by water.



Life cycle of a flowering plant

What are the main stages of the life cycle of flowering plants?

germination

growth

pollination

seed formation

seed dispersal

What would happen if a stage of the life cycle were missing?

SNAPSHOT ASSESSMENT: FLOWERING PLANT LIFE CYCLES

Year group: 3 | Module: Our Changing World. Lesson 5 | Module 1: How Does Your Garden Grow? Lessons 7, 8, 9, 10, EL2, EL3



SNAPSHOT ASSESSMENT: FLOWERING PLANT LIFE CYCLES

Year group: 3 | Module: Our Changing World. Lesson 5 | Module 1: How Does Your Garden Grow? Lessons 7, 8, 9, 10, EL2, EL3



SNAPSHOT ASSESSMENT: TRUE OR FALSE:

WATER TRANSPORTATION IN PLANTS

Year group: 3 | Module: Our Changing World. Whole module | Module 1: How Does Your Garden Grow? Lessons 5, 6

Curriculum statement:

Investigate the way in which water is transported within plants.

Activity instructions

Ideal for use with a group of up to six children.

Tell the children that they are going to read some statements about plants and decide whether or not they are true. Place the header cards in front of the children – TRUE, FALSE, NOT SURE. Show them one of the statement cards and read it with them. Tell the children to talk together as a group and to decide which header matches the statement. Remind the children to think about the reasons for placing the card with that statement. After they have put the first statement beneath a header card, place the rest, or a selection, on the table. Ask them to discuss and sort the statements, and listen to their responses.

Questions to check understanding

What makes you think that is true / false? Why are you not sure about this one? How does water get into a plant? What happens next? How does water travel through a very large plant like a tree? How does water get out of a plant? Why do we need to water some pot plants regularly?

Curriculum statement is achieved if the child:

Can explain that the roots of a plant absorb water and that the water travels through the stem, and leaves the plant through the leaves. Can describe what might happen (based on own observations) to a plant if the weather is hot and dry, for example.



TRUE

FALSE

NOT SURE

SNAPSHOT ASSESSMENT: TRUE OR FALSE:

WATER TRANSPORTATION IN PLANTS

Year group: 3 | Module: Our Changing World. Whole module | Module 1: How Does Your Garden Grow? Lessons 5, 6



Plants need to be planted
in soil.

When it rains, plants soak
up raindrops of water
that land on their leaves.

Some plants need extra
water when the weather
is very hot, because
they lose water quickly
through their leaves.

The roots of a plant
absorb water from
around them.

Plants must have water
to grow and survive.

Water travels up the
stems of a plant or trunk
of a tree and is lost
through the leaves.

Water moves out of
plants through their
roots.

All roots grow
underground.

SNAPSHOT ASSESSMENT: APPEARANCE AND PROPERTIES OF ROCKS

Year group: 3 | Module 2: Rock Detectives. Lessons 1, 2, 3, 4, 5, 6

Curriculum statement:

Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.

Resources:

Samples of marble, chalk, slate and granite used in lessons, plus one unfamiliar rock per child or group

Water, pipette, nail or coin, magnifying glass

Activity instructions

For individual or small group use.

Tell the child / children to observe the familiar rock samples, testing if necessary, and to label them with the properties and appearance cards. Show the features side of three or four identification cards. Tell the child or children to match them to the rocks. When they have done this turn them over to check. Ask: *What other information would be useful on the identification card?* (Expected answer: information about colour.)

Ask the child (or each child in turn) to arrange the rocks into two or three more groups. Ask: *What feature did you use to group them? Why is this a useful way to group them?*

Show the unfamiliar rock. Tell the child to explore it and then to decide which group it fits into.

Questions to check understanding

What does this property / feature mean? How can you check / test whether the rock has this property?

Curriculum statement is achieved if the child:


Can use the specified vocabulary to describe the properties and appearance of rocks. Can make observations and carry out simple tests to confirm those properties. Can identify a rock by the description of its properties. Can group rocks according to a feature or property they have in common.



rough	rough	rough	rough	rough
smooth	smooth	smooth	smooth	smooth
soft	soft	soft	soft	soft
hard	hard	hard	hard	hard
grainy	grainy	grainy	grainy	grainy
flaky	flaky	flaky	flaky	flaky
crystalline	crystalline	crystalline	crystalline	crystalline

SNAPSHOT ASSESSMENT: APPEARANCE AND PROPERTIES OF ROCKS

Year group: 3 | Module 2: Rock Detectives. Lessons 1, 2, 3, 4, 5, 6



heavy	heavy	heavy	heavy	heavy
light	light	light	light	light
shiny	shiny	shiny	shiny	shiny
dull	dull	dull	dull	dull
absorbs water (permeable)	absorbs water (permeable)	absorbs water (permeable)	absorbs water (permeable)	absorbs water (permeable)



Chalk	Slate
FOLD	FOLD
rough, light, soft and crumbly, tiny grains, permeable, dull	smooth, no visible crystals, hard, waterproof, dull
Marble	Granite
FOLD	FOLD
quite hard, small crystals, smooth, shiny, waterproof	smooth, shiny, very hard, waterproof, crystalline

SNAPSHOT ASSESSMENT: WHAT IS SOIL MADE FROM?

Year group: 3 | Module 2: Rock Detectives. Lessons 6, 7, 8

Curriculum statement:

Recognise that soils are made from rocks and organic matter.

Resources:

Soil samples used in the module

Rock samples: clay, chalk, sandstone

Magnifying glass

Activity instructions

This activity is for individual children.

Show two contrasting soil samples, one of which should be clay, sandy or chalky, and ask the child to make observations about the features of the samples, and to describe how they are similar and how they are different.

If the child misses details in their description, ask: *What are the soils made from? Which soil do you think would drain most easily? Why?*

Show the rock samples and indicate a clay, chalky or sandy soil sample.

Ask: *Which of these rock types do you think this soil is made from? What makes you think that? What happened to the rock to change it into soil?*

Curriculum statement is achieved if the child:

Can observe and describe key features of soil: particle size and shape; colour; texture (including stickiness); how well it drains (related to particle size); amount of organic material. Can name the main components of soil. Can describe ways in which rock is broken down to form soil. Can link the composition of the soil, including the rock type, to the features of the soil.

SNAPSHOT ASSESSMENT: FOSSIL FORMATION

Year group: 3 | Module 2: Rock Detectives. Lessons 9, 10, EL1, EL2

Curriculum statement:

Describe in simple terms how fossils are formed when things that have lived are trapped within rock.

Activity instructions

This activity can be carried out with individual children or in pairs. Ask the child or pair to sequence the fossilisation cards to show how a fossil is formed. Listen carefully to the discussion between two children if they are working together.

Discuss the different stages with the children.

Questions to check understanding

How do you know what order these go in? What would happen if the animal decayed before it was covered in mud? Why do fossils usually form in water? How long does the process take? Can fossils form in any sort of rock? What else could become a fossil?

Curriculum statement is achieved if the child:

Can sequence the stages, giving reasons for the order in which they put them.



Sea urchin

The sea urchin dies.

It sinks to the bottom
of the seabed.

The remains are
covered by mud and
other particles.

More layers of mud and
other particles build up on
the lake bottom.

Over a long time,
the mud gets squashed and
it hardens into rock with the
fossil inside.

The rock is pushed up
to form cliffs.

The rock is eroded so the
fossil is on the surface.

SNAPSHOT ASSESSMENT: WHAT DO WE NEED TO SEE?

Year group: 3 | Module 3: Can You See Me? Lessons 1, 4, EL2?

Curriculum statement:

Recognise that we need light in order to see things and that dark is the absence of light.

Activity instructions

This activity can be carried out with a small group or individuals. Lay the cards out on a table and ask children to consider each object in turn and to decide whether or not it helps them to see. Ask children to describe each object carefully – i.e. a candle with a flame, an open eye – and to explain how it enables them to see (light sources give out light, eyes take light in).

From the group of objects that enable them to see, ask children to make a separate group containing the things that make their own light (sun, torch, TV, table lamp, candle with flame, stars). Establish that we call these light sources.

Put all the cards back together and ask the children to sort them into two piles: things that make their own light and enable us to see (the light sources), and things that may help us to see better (glasses, window, mirrors, carrots) and if they can explain why? (Glasses improve eye sight, windows let light through, mirrors and high vis vests reflect light, carrots contain vitamins which are good for eyes.) Remove all the light sources, leaving just the open eye. Ask children what they would be able to see if there were no light sources?

(Absolutely nothing.) Ask: *What do we call it when there is no light?* (Dark or darkness.)

Questions to check understanding

Are any of the objects always light sources? (The Sun.)

How did you decide whether an object is a light source?

How could you check whether an object gives off its own light? Which objects need to have something done to them to make them a light source? (The TV, torch and lamp need to be switched on, and the candle needs to be lit.) Which two things are needed to see? (Eyes and source of light.)

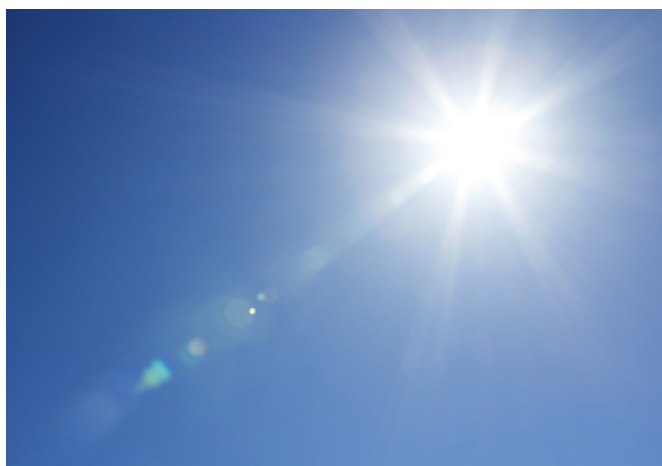
Curriculum statement is achieved if the child:

Can clearly identify that eyes and a light source are needed to see anything. Can explain that without a light source there is darkness and eyes can see nothing.



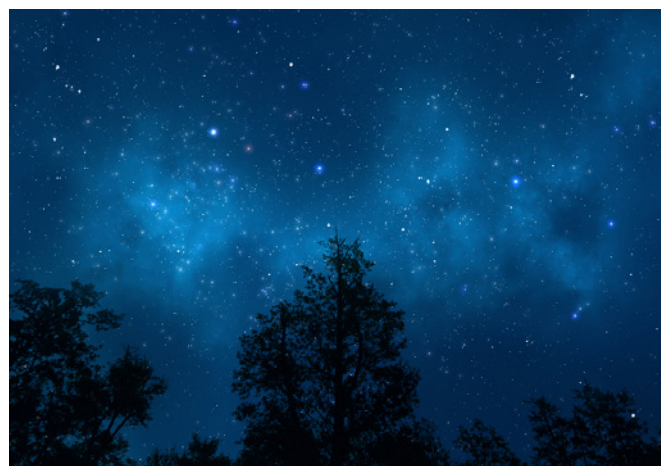
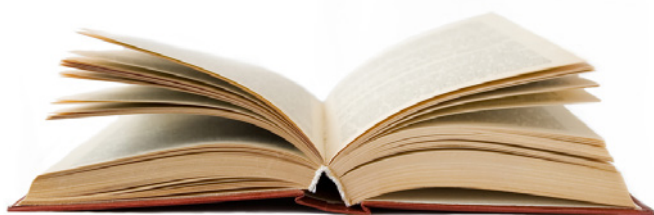
SNAPSHOT ASSESSMENT: WHAT DO WE NEED TO SEE?

Year group: 3 | Module 3: Can You See Me? Lessons 1, 4, EL2?



SNAPSHOT ASSESSMENT: WHAT DO WE NEED TO SEE?

Year group: 3 | Module 3: Can You See Me? Lessons 1, 4, EL2?



SNAPSHOT ASSESSMENT: WHAT REFLECTS BEST? QUIZ

Year group: 3 | Module 3: Can You See Me? Lessons 2, 3, 4

Curriculum statement:

Notice that light is reflected from surfaces.

Activity instructions

Carry the quiz out orally with individual children. Ask them to explain their answers. You may provide a torch, plastic mirror, kitchen foil, brown card and a CD and ask children to use them to support their answers.

Questions to check understanding

Light reflects from surfaces but where does it come from? (A light source – or children might name specific light sources.) Where does it go to that helps us to see? (Our eyes.) Show me how the torch light reflects off a shiny surface. What word do we use to describe surfaces that reflect light well?

(Shiny.) What word do we use to describe surfaces that don't reflect light well? (Dull or matt.) Can you name some shiny objects or materials?

Curriculum statement is achieved if the child:

Can describe or demonstrate how light from a light source (for example, a torch) is reflected off a shiny object. Can rank surfaces in order of shininess and explain that shininess is a measure of how well the surface reflects light.

Answers

Question 1: What word can we use to describe objects that reflect lots of light?

- 1 Bright
- 2 Transparent
- 3 Shiny
- 4 Torches

Question 2: Why are some objects shinier than others?

- 1 They give out more light.
- 2 They reflect more light.
- 3 They don't reflect any light
- 4 They have their own batteries.

Question 3: Which group below has the most shiny objects?

- 1 mirror • white card • orange
- 2 mirror • CD • kitchen foil
- 3 pencil • black paper • mirror
- 4 plastic spoon • white paper • banana

Question 4: If you were in a completely dark room looking for a mirror, a metal spoon and a piece of black card, which ones would you be able to see?

- 1 Mirror and spoon
- 2 Just the mirror
- 3 All of them
- 4 None of them

Question 5: I have a mirror, a piece of scrunched up kitchen foil and a piece of brown card. Which is the correct order from shiniest to least shiny?

- 1 mirror • foil • card
- 2 foil • mirror • card
- 3 mirror • card • foil
- 4 card • foil • mirror

SNAPSHOT ASSESSMENT: WHAT REFLECTS BEST? QUIZ

Year group: 3 | Module 3: Can You See Me? Lessons 2, 3, 4

Question 1: What word can we use to describe objects that reflect lots of light?

- 1 Bright
- 2 Transparent
- 3 Shiny
- 4 Torches

Question 2: Why are some objects shinier than others?

- 1 They give out more light.
- 2 They reflect more light.
- 3 They don't reflect any light
- 4 They have their own batteries.

Question 3: Which group below has the most shiny objects?

- 1 mirror • white card • orange
- 2 mirror • CD • kitchen foil
- 3 pencil • black paper • mirror
- 4 plastic spoon • white paper • banana

Question 4: If you were in a completely dark room looking for a mirror, a metal spoon and a piece of black card, which ones would you be able to see?

- 1 Mirror and spoon
- 2 Just the mirror
- 3 All of them
- 4 None of them

Question 5: I have a mirror, a piece of crumpled up kitchen foil and a piece of brown card. Which is the correct order from shiniest to least shiny?

- 1 mirror • foil • card
- 2 foil • mirror • card
- 3 mirror • card • foil
- 4 card • foil • mirror

SNAPSHOT ASSESSMENT: WHERE IS THE SHADOW?

Year group: 3 | Module 3: Can You See Me? Lessons 5, 6

Curriculum statement:

Recognise that shadows are formed when the light from a light source is blocked by an opaque object.

Activity instructions

This activity is for individual children. Provide coloured pencils including black or grey, as well as the colours of the child's clothes. Draw their attention to the Sun and the child. Ask: *What comes from the sun?* (Light and heat.) Ask: *What is missing from the picture?* (The child's shadow.) Tell the children to draw the child's shadow on the picture. Ask: *Why does the child cast a shadow?* (Because she blocks the light.) *Why is the shadow here?* (Indicate where on the picture the shadow falls.)

Questions to check understanding

How did you know where to draw the shadow? Are shadows always on the ground? Where would the shadow be if the sun was in the other side of the picture? (To the right of the child.)

Curriculum statement is achieved if the child:

Draws a black or grey shadow on the ground behind the child. Draws a shadow that is similar in shape and size to the child. Can draw the shadow connected to the child.



SNAPSHOT ASSESSMENT: SHADOW SIZE

Year group: 3 | Module 3: Can You See Me? Lesson 7

Curriculum statement:

Find patterns in the way that the size of shadows changes.

Activity instructions

This activity is for individual children. Draw their attention to the torch, the puppet and the shadow.

Ask the child to explain how the shadow is formed and to describe its size in relation to the puppet.

Ask: *Where would you put the puppet to cast a bigger shadow?* Tell them to write 'B' on the page.

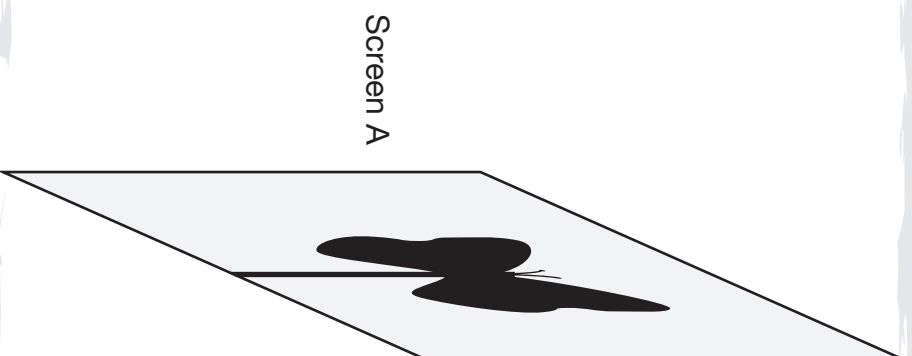
Ask: *Where would you put the puppet to cast a smaller shadow?* Tell them to write 'S' on the page.

Questions to check understanding

Does the shadow get bigger or smaller if the puppet is moved closer to the torch? What else could you move to change the size of the shadow? Which way would you move this for a bigger shadow? Which way would you move it for a smaller shadow?

Curriculum statement is achieved if the child:

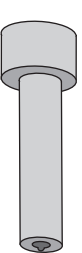
Can write 'B' between the puppet and the torch. Writes 'S' between the puppet and the wall. Says that moving the torch or the screen would also change the size of the shadow.



Screen A



Puppet



Torch

SNAPSHOT ASSESSMENT: SUN PROTECTION

Year group: 3 | Module 3: Can You See Me? Lessons 8, 9 EL1

Curriculum statement:

Recognise that light from the sun can be dangerous and that there are ways to protect the eyes.

Activity instructions

Ideal for use with pairs of children or in a group of up to six.

Provide children with the concept word cards. Sticky notes, a whiteboard and pens might also be useful. Ask the children to use the cards to help them to make sentences that say why they need to protect themselves from the sun, and ways to do it.

Remind children that they can use words on the cards as many times as they wish; that they can add their own words; and that they can revise and improve their sentences until they are satisfied with them. Their sentences should refer to the knowledge and understanding described in the guidance statements. If necessary, prompt the children's thinking by asking questions to check and help clarify their understanding.

When children have finished their sentences, ask them to have a last read through and to make any final improvements, before sharing them with you and the group.

Questions to check understanding

Which parts of our bodies do we need to protect from the Sun? What harm can the Sun do to us? How can we protect our eyes from the Sun? How can we protect our skin? What materials are good at protecting us from the Sun? What word describes materials that block all the light? What word describes materials that let some light through? Would an opaque material be good for sunglasses?

Curriculum statement is achieved if the child:

Can give a reason why eyes should be protected from bright sunlight. Can give a reason why skin should be protected from sunlight. Can give examples of how to protect eyes and skin from bright sunlight, with reference to the amount of light that passes through a material.



the Sun	protect	translucent
bright	protect	block
glasses	light	dangerous
opaque	cream	dark
burn	transparent	t-shirt
material	hat	umbrella
shade	midday	cloudy
always	never	

SNAPSHOT ASSESSMENT: CONTACT FORCE OR NOT?

Year group: 3 | Module: Forces and Magnets. Whole module | Module 4: The Power of Forces. Lessons 1, 2, 5, EL2

Curriculum statement:

Notice that some forces need contact between two objects, but magnetic forces can act at a distance.

Activity instructions

This activity is suitable for individuals or small groups of children. Pick the card showing the boy dragging the suitcase and ask the children to identify the force that is making the suitcase move. Establish that the boy is touching the suitcase. Tell them that this is a contact force. Ask: *Can you find another example of a contact force?* Show them the image of the kite. Ask: *Is this a contact force? What is touching and pushing the kite?* Ask: *Can you find a card with an example of a non-contact force? Are there any others? Can you make two piles of contact and non-contact forces cards? What do we call the non-contact force shown in the cards?*

Questions to check understanding

What force is in action here? Is it a pull or a push? What is pushing or pulling? What effect is it having? Can you find another force that

is similar, i.e. another pull? Can you group all the pulls and pushes into different sets? What does contact mean? What does non-contact mean?

Curriculum statement is achieved if the child:

Can identify the pushes and pulls that are making the objects move and uses the word force to describe them. Can recognise that that is not only living things that can push or pull. Identifies the direction in which the object is moving as a result of the force. Can separate the examples of contact forces from the examples of magnetic force. Uses the word magnetic force to describe the examples of non-contact force in the activity.



SNAPSHOT ASSESSMENT: CONTACT FORCE OR NOT?

Year group: 3 | Module: Forces and Magnets. Whole module | Module 4: The Power of Forces. Lessons 1, 2, 5, EL2



SNAPSHOT ASSESSMENT: SLOW DOWN OR SPEED UP?

Year group: 3 | Module: Forces and Magnets. Whole module | Module 4: The Power of Forces. Lesson 3, EL1

Curriculum statement:

Compare how things move on different surfaces.

Activity instructions

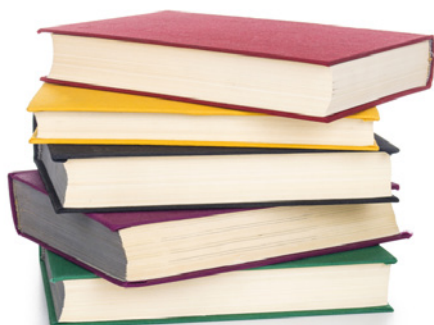
Children can work in groups of two or three. Lay out the two sets of object and surface cards face down on the table. Children should turn over one object card and one surface card and state whether the object would be hard or easy to push or pull over the surface, and to explain why they think that. Remind them that the push or pull is the force that will start the object moving. Encourage the children to tell you about the force between the surface and object that either slows the object down or helps it to speed up. Once all the cards have been turned over, ask them to find the fastest combination and the slowest.

Questions to check understanding

Would it be easier to push a pile of books on the grass or on a tiled floor? Which are the safest shoes to wear when it is icy? Why does the school cleaner put out warning signs when the floor has been washed?

Curriculum statement is achieved if the child:

Can identify that a combination of smooth surfaces will lead to easy, fast movement whereas a combination of rough surfaces will lead to slow, difficult movement.



SNAPSHOT ASSESSMENT: SLOW DOWN OR SPEED UP?

Year group: 3 | Module: Forces and Magnets. Whole module | Module 4: The Power of Forces. Lesson 3, EL1



SNAPSHOT ASSESSMENT: WHAT IS MAGNETIC?

Year group: 3 | Module: Forces and Magnets. Whole module | Module 4: The Power of Forces. Lesson 4, 6, 7

Curriculum statement:

Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.

Activity instructions

Use the cartoon to begin a conversation with individual children or a small group.

Ask: *Which person do you agree with? What evidence have you seen that supports your idea?* Establish that only some metals are attracted to magnets, i.e. are magnetic. Ask the children to explain how they could test a metal to find out if it is magnetic.

Ask: *Which metals go in each list?* Offer suggestions if necessary and help with spelling.

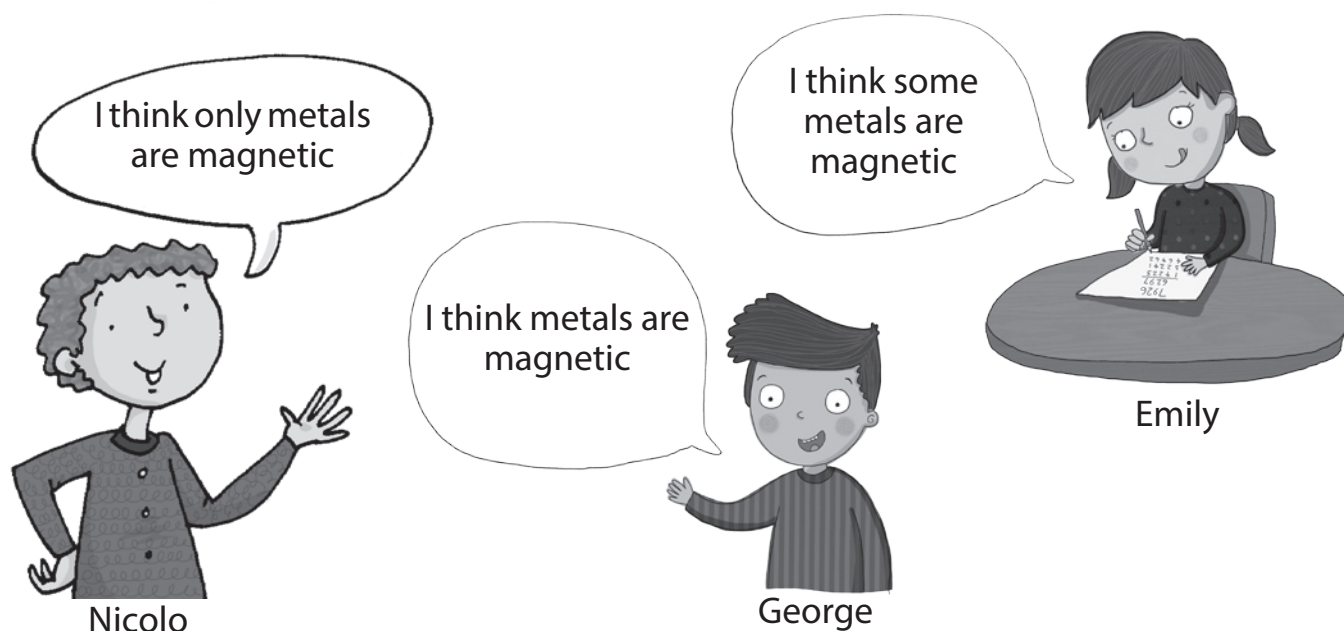
Ask children to complete the sentences, using the words 'attract' and 'repel'. Help with spelling if required.

Questions to check understanding

Do you have any magnets on your fridge at home? What do you think a fridge is made from? Why don't fridge magnets stick to wooden cupboards? Why isn't a magnet any use for sorting aluminium cans out of a pile of rubbish?

Curriculum statement is achieved if the child:

Agrees with Emily and states that only some metals are magnetic. Can explain that this can be tested by checking if a magnet sticks to them. Can list iron as a magnetic metal. Children may also list iron as a constituent of steel and list other magnetic metals such as cobalt and nickel. Can complete the sentences correctly stating that magnets attract and repel other magnets, but only attract, and do not repel, magnetic materials.



Magnetic materials	Non-magnetic materials

Magnets can or each other. Magnets can only
, never magnetic materials.

SNAPSHOT ASSESSMENT: MAGNETIC FORCE

Year group: 3 | Module: Forces and Magnets. Whole module | Module 4: The Power of Forces. Lessons 6, 7

Curriculum statement:

Observe how magnets attract or repel each other and attract some materials and not others.

Activity instructions

Children can work independently or in pairs or groups of three. Ask them to read each card in turn and to decide whether it is true or false. They should give a reason for their decision.

Questions to check understanding

What do we call the force between two magnets? What do we call materials that are attracted to a magnet?

You may provide children with a couple of bar magnets and ask them to demonstrate their answers to questions.

Curriculum statement is achieved if the child:

Can sort the cards correctly, recognising that magnets can attract or repel each other depending on their position and that some metals are attracted to magnets.



Two magnets always attract each other.

Magnets attract all metals.

Magnets attract all shiny materials.

Magnets can attract or repel each other.

Magnets don't need to touch before they attract or repel each other.

The two ends of a magnet are different.

Magnets only attract some metals.

Magnetic force can pass through some materials.

SNAPSHOT ASSESSMENT: MAGNETIC POLES

Year group: 3 | Module: Forces and Magnets. Whole module | Module 4: The Power of Forces. Lesson 7

Curriculum statement:

Describe magnets as having two poles.

Resources

Bar magnet

Horseshoe magnet

Activity instructions

Ask an individual child: *What are the two ends of a magnet called?*

Give a child both a bar magnet and a horseshoe magnet and ask them to point to the poles.

Questions to check understanding

What do we call the end of a magnet? How are the two ends different?

Curriculum statement is achieved if the child:

Can correctly state that the ends of a magnet are called the north and south pole. Can identify the ends of the bar magnet and horseshoe magnet as the poles.

SNAPSHOT ASSESSMENT: POLES ATTRACT AND REPEL

Year group: 3 | Module: Forces and Magnets. Whole module | Module 4: The Power of Forces. Lesson 7

Curriculum statement:

Predict whether two magnets will attract or repel each other, depending on which poles are facing.

Activity instructions

Talk about the images on the sheet with a child or small group, or ask children to complete the questions and then to discuss their answers with you.

Ask children to tell you how the bar magnets will behave and to explain why. They should refer to the poles.

Ask the children to explain why the ring magnets appear to be floating. Ask which way up each magnet is. Encourage them to use the words 'poles', 'attract' and 'repel'.

Questions to check understanding

What is the difference between the ways Rosie has arranged the two pairs of bar magnets? Will they pull together or push apart? Can you explain why they will attract or repel?

Can you describe what each pair of ring magnets is doing: are they repelling or attracting. Why? What would happen if you turned each ring magnet over?

Curriculum statement is achieved if the child:

Can indicate correctly whether the pairs of bar magnets will attract or repel each other. Can explain why the ring magnets are floating or sticking and can predict what will happen if the arrangement is changed. Can use the idea and vocabulary of poles to explain the magnets' behaviour.

Rosie brings two magnets together.

Do they attract or repel?

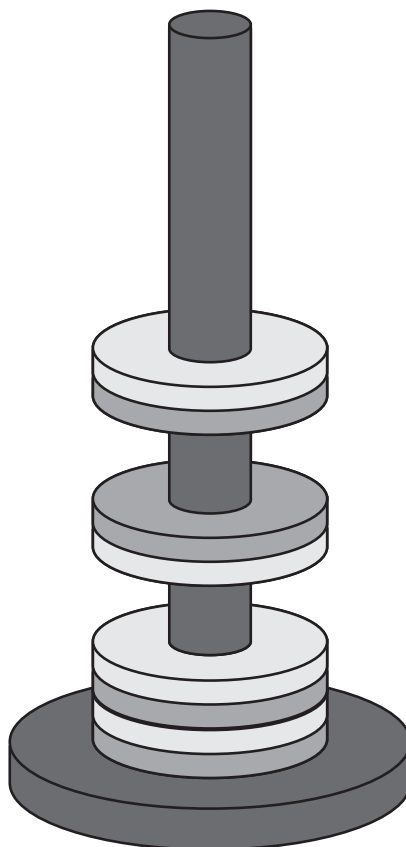


What do they do now? Attract or repel?



She also has a set of ring magnets.

The poles are on different sides. Can you work out how she has arranged the magnets?



SNAPSHOT ASSESSMENT: FOOD AND NUTRIENTS

Year group: 3 | Module 5: Amazing Bodies. Lessons 1, 2, 3, 9, EL1 | Year group: 4 | Module 4: Where Does All the Food Go? Lesson 1

Curriculum statement:

Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.

Activity instructions

Tell the children that you are going to talk about the nutrients that humans and other animals get from the food they eat.

Ask the children to name three animals and to tell you what they eat. Ask if any of these animals make their own food? Establish with children that they understand that it is not possible for humans or other animals to make their own food, apart from when female mammals produce milk for a short time to feed their babies.

Ask the children to name some nutrients that humans get from the food they eat. Establish that these are carbohydrates, proteins, fats, roughage, minerals and vitamins. Ask the children to tell you what the human body needs each of these nutrients for.

If needed, provide the graphic organiser template.

Questions to check understanding

What nutrients do our bodies need?

Where do we get them from?

What do carbohydrates / proteins / fats / roughage / vitamins and minerals give our bodies?

What might happen if we didn't have (one of the nutrients)?

Curriculum statement is achieved if the child:

Can use three examples to identify that animals cannot make their own food. Can name at least four types of nutrients and give the benefits to the human body with each one.

carbohydrates	proteins	fats	roughage	minerals and vitamins
↓	↓	↓	↓	↓
What are they used for?				
↓	↓	↓	↓	↓
What would happen if they were missing from our diet?				

SNAPSHOT ASSESSMENT: TRUE OR FALSE: SKELETON

Year group: 3 | Module 5: Amazing Bodies. Lessons 4, 5, 6, 7, 8, EL2

Curriculum statement:

Identify that humans and some other animals have skeletons and muscles for support, protection and movement.

Activity instructions

Tell the children you are going to play a true or false game about skeletons. Give them the cards, shuffled, and ask them to lay them on the table one at a time and to answer the following question: *This animal has a skeleton – true or false?*

Give the children a moment to self-correct any errors. They should get at least five correct, including humans.

Then ask: *Why do humans and some animals have skeletons?*

Encourage the children to name the three different functions:

- to support the body
- to help movement
- to protect the organs inside the body.

Questions to check understanding

What would happen if a penguin didn't have a skeleton? Can you give an example of how an animal moves without a skeleton? What might happen when the organs in an animal's body are not protected by a skeleton?

Curriculum statement is achieved if the child:

Can identify that humans and some animals have skeletons for protection, support and movement, giving at least five examples.



SNAPSHOT ASSESSMENT: TRUE OR FALSE: SKELETON

Year group: 3 | Module 5: Amazing Bodies. Lessons 4, 5, 6, 7, 8, EL2



SNAPSHOT ASSESSMENT: ODD ONE OUT: ANIMALS

Year group: 4 | Module: Our Changing World. Lesson 1 | Module 6: Who Am I? Lessons 3, 4

Curriculum statement:

Recognise that living things can be grouped in a variety of ways.

Activity instructions

Ideal for use with multiple pairs of children (ensure that sufficient sets of odd one out cards are printed and prepared).

Give children three animal image cards and tell them that one is the 'odd one out'. Ask them to say which they think is the 'odd one out'. Prompt them, as necessary, to focus on physical characteristics. Give the children another set of three animal images. Tell the children to name other animals that belong in the group and say why. After the children have attempted to recall and use what they have learned during the module lessons, they could refer to the fact cards below for information.

Questions to check understanding

Which is the odd animal here? What makes it unlike the other two? Which group do those animals belong to? Can you name any other animals that belong to that same group? What is similar about them? What makes them belong to the same group?

Curriculum statement is achieved if the child:

Can identify common characteristics by which animals might be grouped, and can name others with similar characteristics. Can name the animal group of selected animals. Can explain their reasoning, i.e. say what characteristics are common to a particular type of animal.



SNAPSHOT ASSESSMENT: ODD ONE OUT: ANIMALS

Year group: 4 | Module: Our Changing World. Lesson 1 | Module 6: Who Am I? Lessons 3, 4

Fish have gills so they can breathe under water.	Fish live in water. They cannot survive on land.
Fish are covered in wet scales.	Fish lay eggs in water.
Fish have fins and a tail for swimming. They do not have legs.	Fish are 'cold-blooded', which means they are the same temperature as their surroundings.

Young amphibians look different from their parents. They can only live in water. The adults can live on land.	Young amphibians usually have gills so that they can breathe under water. Adults usually have lungs.
Amphibians have skin with no hair, feathers or scales. It must be kept moist.	Amphibians lay eggs in water.
Most amphibians have 4 legs but they do not have claws. Some have tails.	Amphibians are 'cold-blooded', which means they are the same temperature as their surroundings.

Young reptiles look like small adults.	Reptiles have lungs and cannot breathe under water.
Reptiles have dry, scaly skin.	Reptile eggs have leathery shells and so they can be laid on land.
Reptiles that have legs also have claws on their toes.	Reptiles are 'cold-blooded', which means they are the same temperature as their surroundings.

SNAPSHOT ASSESSMENT: ODD ONE OUT: ANIMALS

Year group: 4 | Module: Our Changing World. Lesson 1 | Module 6: Who Am I? Lessons 3, 4

Birds have two legs and two wings. Most birds can fly.	Some birds can swim, but they have lungs so cannot breathe under water.
Birds have feathers and beaks.	Birds lay eggs that have hard shells.
Most birds have very light, hollow bones to help them fly.	Birds are 'warm-blooded', which means they can stay at the same temperature even when they are in cold places.

Mammals (even those that live in water) have lungs, not gills, so they need to come to the surface to breathe.	Mammals have different types of teeth so they do not need to swallow their food whole.
Mammals have hair or fur.	Almost all mammals give birth to live young.
Mammals produce milk to feed their young.	Mammals are 'warm-blooded', which means they can stay at the same temperature, even when they are in cold places.

SNAPSHOT ASSESSMENT: IDENTIFICATION KEYS

Year group: 4 | Module: Our Changing World. Lessons 2, 3 | Module 6: Who Am I? Lessons 1, 2

Curriculum statement:

Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.

Activity instructions

Ideal for use with individual or pairs of children.

Show the children the images of either the six trees or the six wild flower plants. Tell them to look for similarities between the plants, as well as obvious differences, and to name any plants that they recognise. Ask the children what they noticed. Prompt them by asking questions, as necessary. Tell them that they are going to use a key to help them identify the plants.

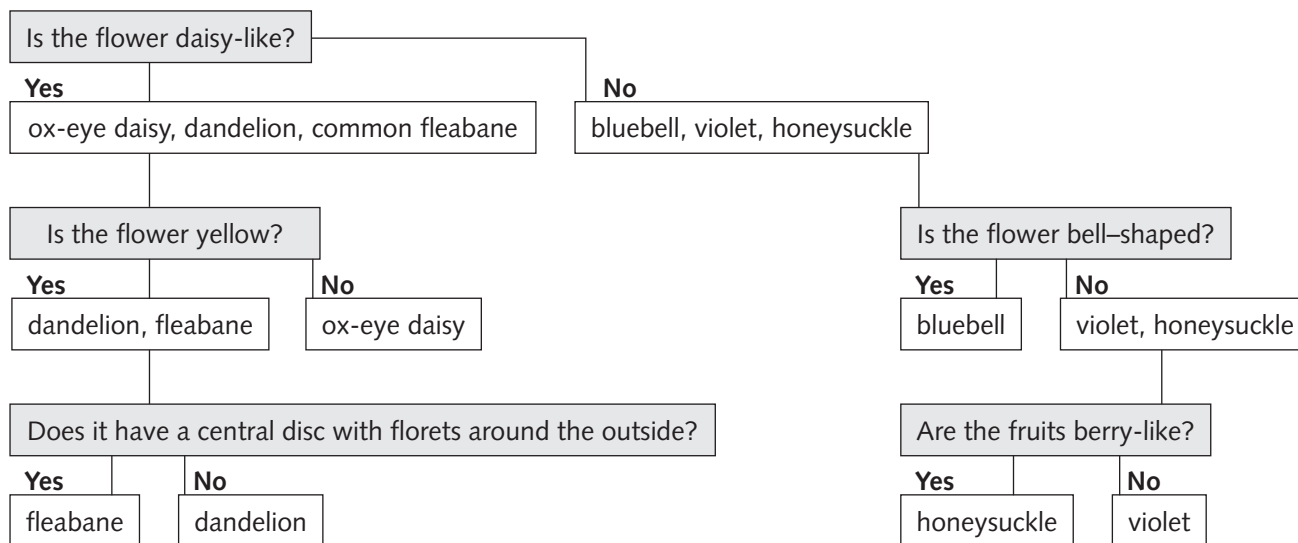
Questions to check understanding

What information can you see (in the pictures) that might help you to identify this tree / wild flower plant? Which features (of the plant) might help you? Do any of the trees / wild flower plants have characteristics in common? How are they different from one another?

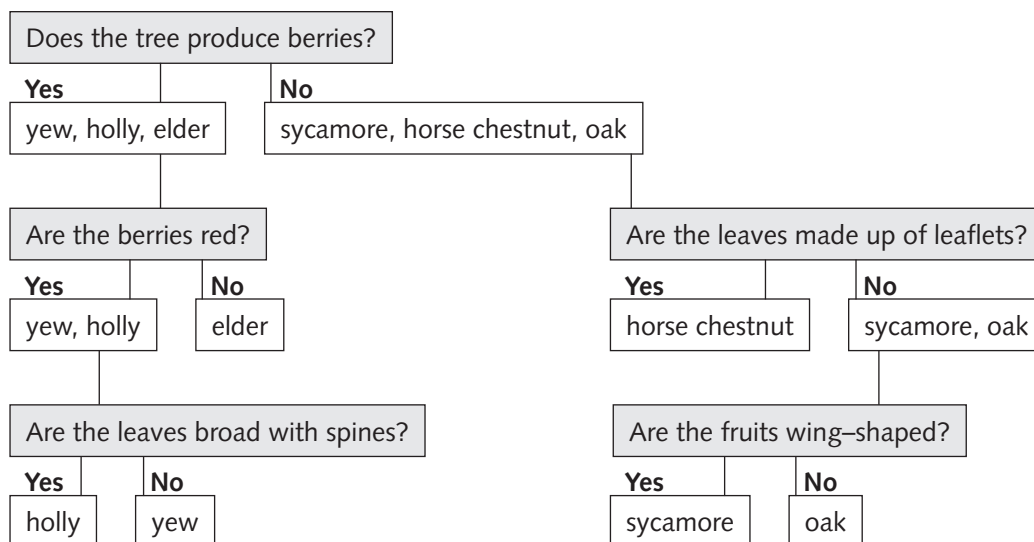
Curriculum statement is achieved if the child:

Can group the examples of trees and wild flower plants according to similarities, and identify differences. Can use a key effectively to help identify and name the trees and wild flower plant examples provided.

Wild flower plant key: ox eye daisy, dandelion, common fleabane, bluebell, violet, honeysuckle



Tree key: yew, holly, sycamore, horse chestnut, elder, oak



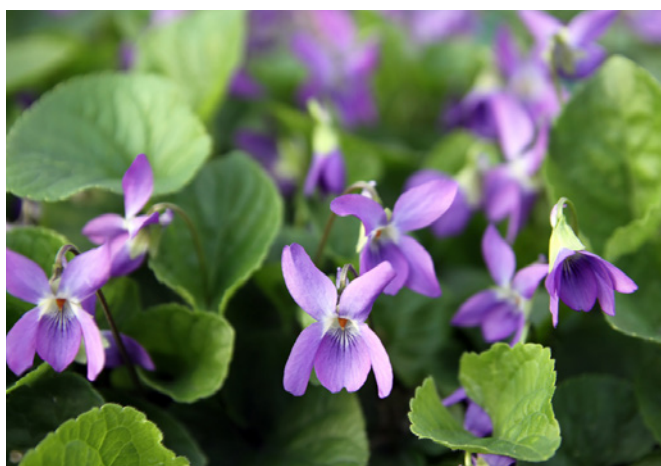
SNAPSHOT ASSESSMENT: IDENTIFICATION KEYS

Year group: 4 | Module: Our Changing World. Lessons 2, 3 | Module 6: Who Am I? Lessons 1, 2



SNAPSHOT ASSESSMENT: IDENTIFICATION KEYS

Year group: 4 | Module: Our Changing World. Lessons 2, 3 | Module 6: Who Am I? Lessons 1, 2



SNAPSHOT ASSESSMENT: WHICH STATE IS WHICH?

Year group: 4 | Module 1: In a State. Lessons 1, 5, 6, EL3

Curriculum statement:

Compare and group materials together, according to whether they are solids, liquids or gases.

Resources:

5-7 materials, including a hard and soft solid; a powder; 2 liquids of different viscosity; a gas

Activity instructions

This activity is for individual children or pairs of children.

Arrange the headings 'solid', 'liquid' and 'gas' next to each other (or draw a simple table). Ask the child / children to sort the properties cards under the correct headings to show properties that apply to solids, liquids and gases, which allow us to sort materials. Explain to children that if a property applies to more than one state of matter, they can place it so that it overlaps two columns. There may be some statements that do not fit into any of the columns – leave these on one side.

Note: If two children are working together, they must discuss and agree where to place each one.

Now present the children with the materials and ask them to place each under the correct heading, explaining how they know where to put each property card.


Questions to check understanding

Can you explain why you placed this card here? Does this property apply to all [solids / liquids / gases]? Will it help us to decide what state a material is in? What properties are you looking for to help you to sort the materials? What happens when you pour a powder or grainy solid? How can you tell that the powder is a solid? How can you tell that the [viscous liquid] is a liquid?

Curriculum statement is achieved if the child:

Can place the cards in the correct columns.

Can recognise that 'transparent', 'opaque' and 'hard' are not characteristics that are useful for sorting into solid, liquid and gas. Can correctly sort the materials, giving reasons that relate to their properties.



are transparent	have a horizontal (level) surface
spread out to fill all of the space they are in	are opaque
are hard	can be compressed (made smaller)
can be poured	can flow

SNAPSHOT ASSESSMENT: WHICH STATE IS WHICH?

Year group: 4 | Module 1: In a State. Lessons 1, 5, 6, EL3



stay the same shape

change shape
when put into different
containers

make pools

are very light

can spread out

always stay the
same size

make piles

solid

liquid

gas

SNAPSHOT ASSESSMENT: CHANGES OF STATE

Year group: 4 | Module 1: In a State. Lessons 2, 3, 4, 7, 8, 9, 10, EL1, EL2

Curriculum statement:

Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).

Activity instructions

This activity is for individual children or small groups of children. Show the children the images on the pages below. If necessary, clarify what they show without using the words for the state of matter or the change of state. Give the change of state cards to the children and tell them to match the cards and pictures (some cards match with more than one picture).


Choose a picture and ask: *What is the name of the change of state happening here? How can you tell that it is happening? What material is changing? Can you give me a sentence that describes this change of state? Is the change taking place at a cold, warm or hot temperature?* Give children the images of the ice cube, butter, chocolate and glass. Ask: *Which one melts at the lowest temperature? Which needs the highest temperature to melt? Can you put them in order of melting temperature?*

Questions to check understanding

Can you think of any other materials that melt at very high temperatures? Can you think of another material we could safely melt in the classroom? Do you know the temperatures at which water freezes and melts?

Curriculum statement is achieved if the child:

Knows which changes are caused by heating and which by cooling. Can identify which are the changes of state and describe which state the material is changing from and to, and how they can tell that the change is taking place. Can recognise changes of state that involve materials other than water. Can identify which changes are taking place at cold, warm and hot temperatures. Can state the freezing and boiling point of water and identify materials with higher or lower melting or boiling points.



melting	boiling
evaporating	freezing
condensing	solid to liquid
liquid to gas	gas to liquid

SNAPSHOT ASSESSMENT: CHANGES OF STATE

Year group: 4 | Module 1: In a State. Lessons 2, 3, 4, 7, 8, 9, 10, EL1, EL2



SNAPSHOT ASSESSMENT: THE WATER CYCLE

Year group: 4 | Module 1: In a State. Lessons 7, 8, 11, 12

Curriculum statement:

Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Activity instructions

This activity is for individual children or pairs of children.

Show the cards to the child or pair. Ask for definitions of evaporation and condensation (children working in pairs must agree on definitions). If the definition of evaporation is ambiguous, ask: *How is evaporation different from boiling?*

Show children the picture and ask them to put the labels where they think the processes of evaporation and condensation are happening. For each label, ask the child or pair to describe what is happening and why.

Then ask them if they can identify any other places on the picture where evaporation might be happening. Ask: *What conditions would make the water evaporate faster / slower?*

Questions to check understanding

At what temperature does water boil? Does water need to be at 100 °C to evaporate? Where does the liquid change to a gas during evaporation? How is boiling different? What causes a gas to condense? On the picture where is the water evaporating from?

What causes this? How do we know the water has condensed? Why does it condense? What happens to the water drops? What makes washing dry faster and puddles dry up quickly?

Curriculum statement is achieved if the child:

Can define evaporation and condensation. Knows that boiling happens at a specific temperature and evaporation happens across the temperature range. Can describe how clouds are formed by water vapour cooling as it rises and condensing into small drops of water, and can identify where this is shown on the picture. Can describe how water evaporates from the surface of a body of water (sea, lake, reservoir, river) to form water vapour in the air. Can state that evaporation increases with increase in temperature (or decreases with decrease in temperature), and may also refer to other factors, such as wind.

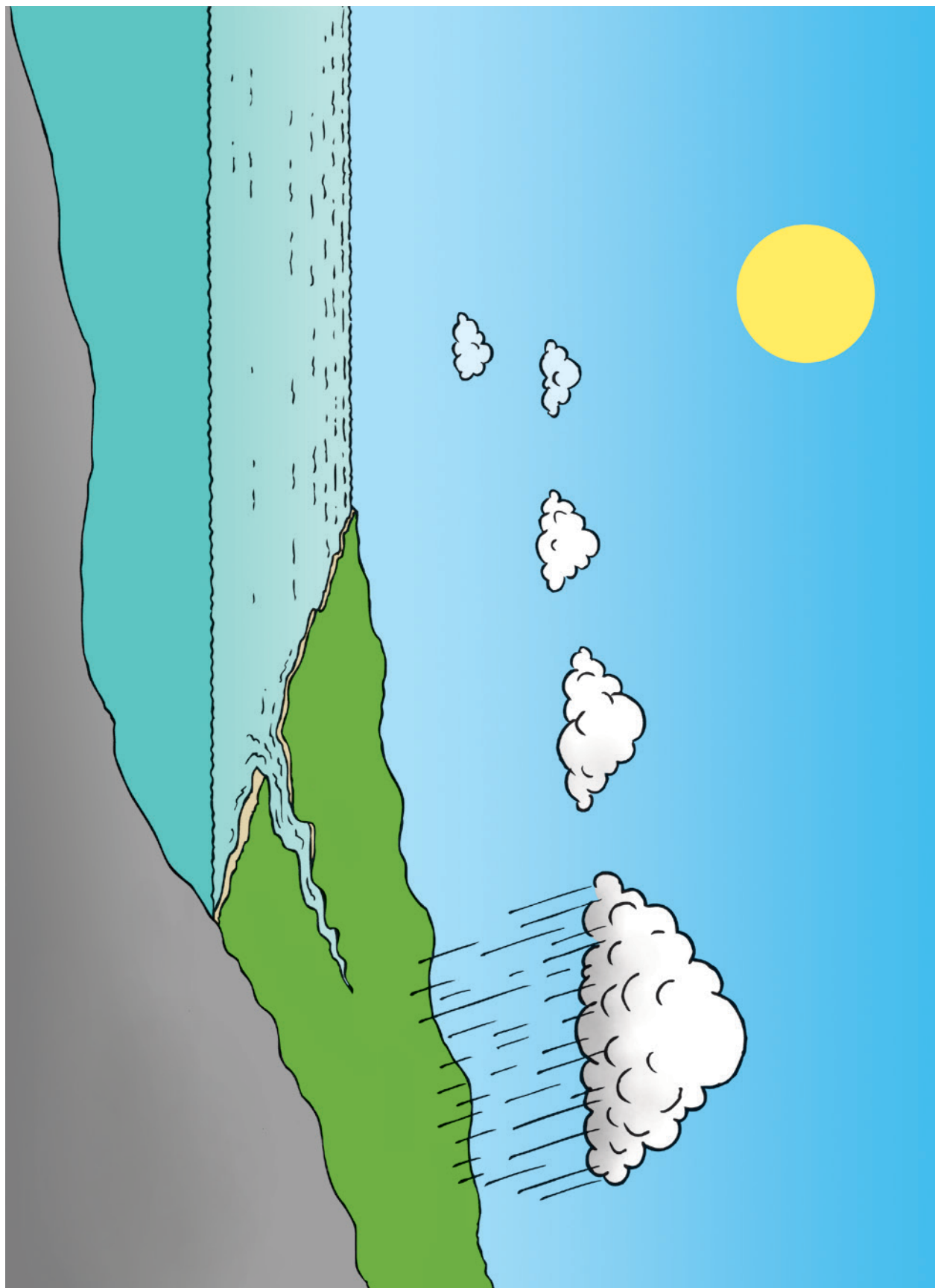


Condensation

Evaporation

SNAPSHOT ASSESSMENT: THE WATER CYCLE

Year group: 4 | Module 1: In a State. Lessons 7, 8, 11, 12



SNAPSHOT ASSESSMENT: MAKING SOUNDS

Year group: 4 | Module 2: Good Vibrations. Lessons 1, 2, 6, 7, EL1, EL4

Curriculum statement:

Identify how sounds are made, associating some of them with something vibrating.

Resources:

Two different musical instruments that are played in different ways, such as a recorder and a triangle, or maracas and a guitar

Activity instructions

This activity is for individual children.

Show the two instruments to the child and make sure that they know their names. Ask: *What is the word for anything that makes a sound?* When you have elicited the word 'source', ask: *Can you name another sound source in the classroom?*

Sit the child facing away from you and play one of the instruments. Ask: *Which instrument did I play?* Play the other instrument and ask the child to describe a difference between the two sounds. Play them again if necessary.

Tell the child to face you. Choose one of the instruments and encourage the child to make a sound with it. Ask: *How is it making the sound?* If the child does not mention vibrations, ask: *What is happening to the [triangle / air / string] to make the sound?* When you have elicited the word 'vibration', ask the child to explain what it means and confirm that they know what is vibrating. Repeat if necessary with the other instrument.

Note: This assessment activity would need to be adapted for a hearing-impaired child.

Questions to check understanding

What did you do to start the sound? Can you see the vibrations? How do you know that something is vibrating? Can you feel them? Would you play the other instrument in the same way?

Curriculum statement is achieved if the child:

Can correctly use the terms 'sound source' and 'vibration'. Can distinguish between the instruments and give one way in which the instruments sound different – this may be pitch or loudness but could also be related to the qualities of the sounds. Can define 'vibration' as small backwards and forwards movements. Can identify what is vibrating to cause the sound, i.e. a part of the instrument or the air in a wind instrument.

SNAPSHOT ASSESSMENT: SOUND TRAVELLING

Year group: 4 | Module 2: Good Vibrations. Lessons 3, 5, EL1

Curriculum statement:

Recognise that vibrations from sounds travel through a medium to the ear.

Activity instructions

The first part of this task can be presented to a group, but the questions to check understanding are for individual children.

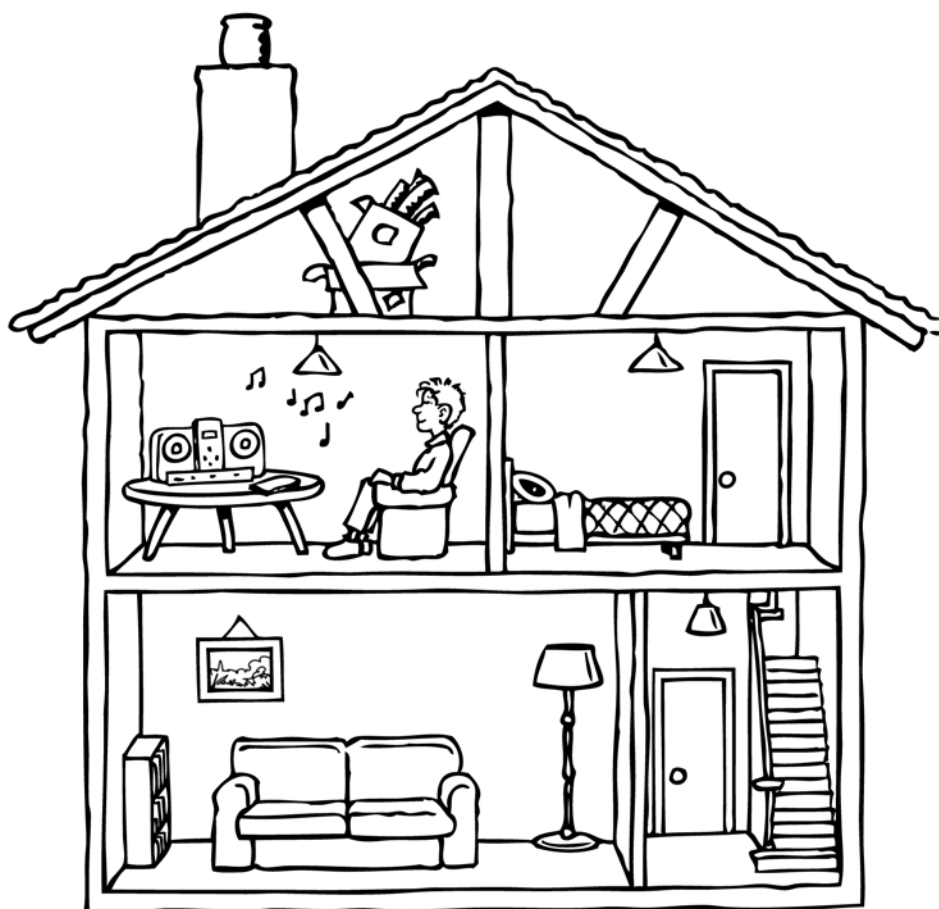
Showing the image, tell the child that the mp3 player is turned up very loud and that the person is listening to it. Tell them to draw what happens to the sound from the mp3 player, including how the person hears it. Then tell them to explain their drawing to you. If the child only draws the sound travelling to the person, prompt them by asking: *Would someone in another part of the room be able to hear the sound? Does your drawing show that? What is the sound travelling through?* The child will probably draw the sound confined to the room. If the drawing does not show sound going beyond the room, ask: *Would people be able to hear the sound anywhere else in the house? Where do you think they would hear it? How would the sound reach them? What would it travel through?* Ask the child to give an example of an activity they have done in class that shows that sound can travel through solid materials.

Questions to check understanding

How does everyone in the room hear when I am talking? What direction does sound travel in from a source? How does the person hear the sound? How does the sound get to the person's ears? Have you ever heard something making a sound when you couldn't see it? If you have taught enrichment lessons 3 or 4 you could also ask: Have you done an activity in class that shows that sound can travel through liquids? (They will know about how fish hear, and about the use of echolocation by dolphins.)

Curriculum statement is achieved if the child:

Can show and describe sound travelling from the sound source to the person's ear, in any way that is clear, such as arrows and wiggly lines. Can recognise that the sound travels in all directions from the source. Knows that the sound in the room is travelling through air. Can recognise that someone out of sight of a loud sound source in a different room will still be able to hear it because the sound can pass through the solid walls, floors etc. Can give an example of sound travelling through a solid material, for example tapping on the table, ear gongs from lesson 3 or the string telephone from enrichment lesson 1.



SNAPSHOT ASSESSMENT: CHANGING VOLUME

Year group: 4 | Module: Good Vibrations. Lessons 4, EL2

Curriculum statement:

Find patterns between the volume of a sound and the strength of the vibrations that produced it.

Resources:

Wooden or plastic ruler

Large and small glass jar; large and small empty food can; large and small polystyrene cup; ceramic mug, wooden or plastic beads

Activity instructions

This activity is for individual children.

Tap lightly and then more forcefully on something out of sight of the child, for example, the underside of the table. Ask: *What was different about the two sounds? Which was the loudest? What do you think I did to change the loudness of the sound?*

Remind the child how to make a sound by holding the ruler over the edge of the table, pulling down and releasing it. Tell them to make a loud sound with the ruler, then to make a quiet sound, and to describe how the vibrations are different.

(For a quick assessment of pitch you could ask them to change the pitch of the sound made by the ruler. For a fuller assessment of pitch use the Changing Pitch snapshot.)

Show the other resources. Tell the child they are going to make a simple shaker. Demonstrate by putting the beads into the ceramic mug and shaking it. Ask the child to choose containers to make a loud and a quiet shaker and to explain their choices. Allow the child to test the containers they chose. Ask: *What can you tell me about the vibrations in the loud one compared with the quiet one?*

Note: This assessment activity would need to be adapted for a hearing-impaired child.

Questions to check understanding

What is the scientific word for loudness? What happens to the vibrations when you hit something harder? What would I need to do to change the loudness of the sound on a wind or a stringed instrument? What can you see when the ruler is making a loud and a quiet sound? Have you changed the length of the ruler? What difference does the material make to the sound? Which material do you think will make the loudest sound? Do you think the size will make a difference? How could you make a quieter sound using the loud shaker?

Curriculum statement is achieved if the child:

Can use the word 'volume' to describe the loudness of a sound. Can compare the loudness of sounds. Knows how to change the loudness of sounds made in different ways. Can recognise that when the sound is louder, the vibrations are stronger. Can give reasons for their choice of container related to the size and type of material (*Note:* the loud shaker should be louder than the quiet one, but the focus should be on the reasoning more than the solution.) Can choose the thickest string for the lowest note on a stringed instrument and give reasons for this choice. Recognises that a higher pitched note can be played by tightening or shortening a string.

SNAPSHOT ASSESSMENT: CHANGING PITCH

Year group: 4 | Module 2: Good Vibrations. Lessons 6, 7

Curriculum statement:

Find patterns between the pitch of a sound and features of the object that produced it.

Resources

Three instruments:

- an instrument with discrete parts for each note, such as pan pipes, palm pipes, chime bars or xylophone
- a wind instrument, such as recorder, tin whistle or slide whistle
- a stringed instrument, such as guitar, violin or elastic bands of different thickness stretched across a box.

Activity instructions

This activity is for individual children or small groups (if different instruments for each group are available).

Play a mid-range note on the instrument with discrete parts, clearly showing which bar or pipe you used. Give the instrument to the child and ask them to tell you how to play a higher note on it, and then how to play a lower note. Follow their instructions and ask them to listen to the notes and to tell you whether each one is higher or lower. Ask: *What is the scientific word for how high or low a note is? How did you know which bar or pipe to choose for a higher or lower note?*

Show the wind instrument and ask the child to describe or demonstrate what to do to play a high and low note. Ask: *How does this cause a change in the pitch of the note?*

Show the stringed instrument and ask: *Which string will play the lowest note? Why do you think that?* Tell the child to describe or demonstrate

how to change the note played on a string, predicting before they play the note whether it will be higher or lower. *Note:* This assessment activity would need to be adapted for a hearing-impaired child.

Questions to check understanding

What is vibrating when you play the wind instrument? What are you changing when you play different notes on the wind instrument? Is there another way to change the note played by a string?

Curriculum statement is achieved if the child:

Knows that pitch means how high or low a sound is.

Can recognise and describe a higher or lower note.

Can choose a larger bar or pipe for a lower note and a smaller bar or pipe for a higher note and give reasons for this choice.

Can describe or demonstrate how to change the length of the column of air in a wind instrument to make a high and a low pitched note.

Can choose the thickest string for the lowest note on a stringed instrument and give reasons for this choice.

Recognises that a higher pitched note can be played by tightening or shortening a string.

SNAPSHOT ASSESSMENT: HOW FAR AWAY CAN YOU HEAR IT?

Year group: 4 | Module 2: Good Vibrations.

Curriculum statement:

Recognise that sounds get fainter as the distance from the sound source increases.

Activity instructions

This activity is for individual children or pairs of children.

Show the picture to the children. Tell them that the teacher blew a whistle for the end of playtime and that one of the children said, "That was so loud that it hurt my ears". Ask: *Which child do you think said that? Why do you think that? What would the child hear if they walked away from the teacher as he was blowing the whistle?* Tell them that when the whistle blew, all the children stopped and the teacher then told them to go and line up. One of the children didn't hear her and didn't line up.

Ask: *Which child do you think that was? Why do you think that?*

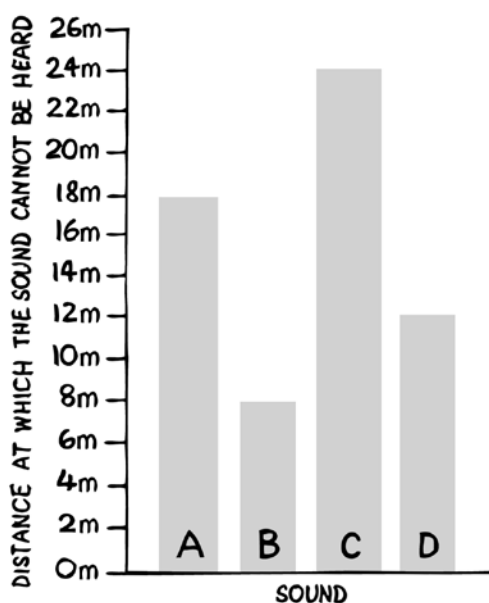
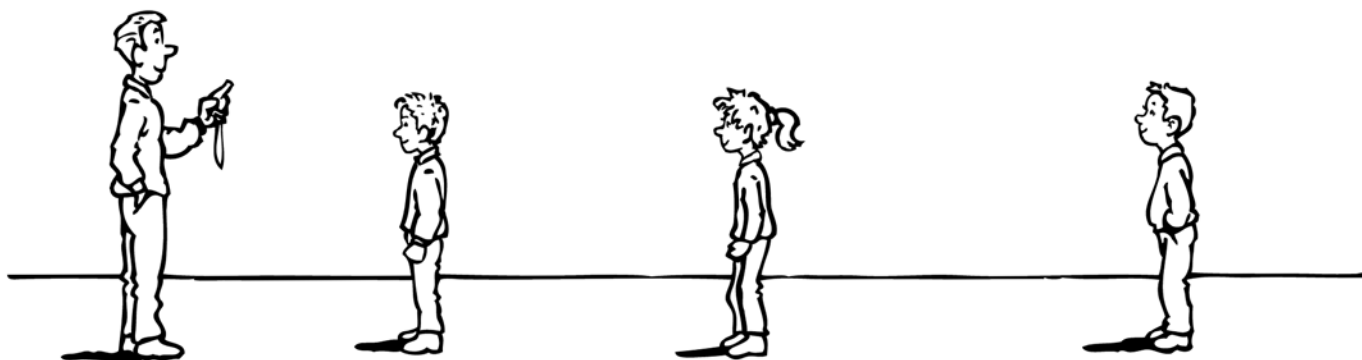
Show the graph to the child. Make sure that the child understands what it shows. Ask: *Which is the loudest sound? How do you know?*

Questions to check understanding

Do you think that all the children in the playground would hear the whistle? What could the teacher do to make sure that everyone heard her instruction?

Curriculum statement is achieved if the child:

Can recognise that the whistle will sound louder to a child standing closer to it. States that the sound would get quieter as the child walks away from it. Can recognise that the child standing the furthest from a sound is least likely to hear it. Can recognise that the loudest sound will be the one that can be heard from the furthest distance.



SNAPSHOT ASSESSMENT: DOES IT USE ELECTRICITY?

Year group: 4 | Module 3: Switched On. Lesson 1

Curriculum statement:

Identify common appliances that run on electricity.

Activity instructions

This two part activity is suitable for individuals or pairs of children working with an adult.

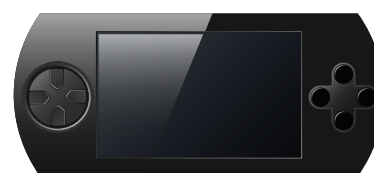
Ask children to sort the appliances on the cards according to whether or not they use electricity. Then ask them to sort the 'electricity' set according to whether the appliance uses mains electricity, rechargeable batteries or non-rechargeable batteries. Ask the children to give reasons for their decisions.

Questions to check understanding

What does this appliance do? What makes it work? What do you have to do to each appliance to make it work? (Fit a battery, plug it in, and plug it in to charge it.) What are the advantages and disadvantages of each type?

Curriculum statement is achieved if the child:

Can correctly identify the electrical appliances. Can recognise that battery powered appliances use electricity. Can distinguish between mains, battery and rechargeable appliances.



SNAPSHOT ASSESSMENT: MAKING A CIRCUIT

Year group: 4 | Module 3: Switched On. Lesson 2

Curriculum statement:

Construct a simple series electrical circuit, identifying and naming its basic parts including cells, wires, bulbs, switches and buzzers.

Resources

Cell, battery holder, crocodile clip wires, bulb, bulb holder, switch (commercial or school-made)

Activity instructions

Ask the child to name each component in turn. For each component, ask: *What does this do?* Tell the child to use the components to make the bulb light up. Ask: *How can you turn it on and off?* Ask the child to

describe what they have done and give reasons for why they have constructed their circuit in that way.

Questions to check understanding

What do you call what you have made? What must you join the wires to in order to make it work? Where does the electricity go? What is it about wire that makes it work? What would happen if a part was missing?

Curriculum statement is achieved if the child:

Can construct a complete working circuit controlled by a switch. Can name the components correctly.

SNAPSHOT ASSESSMENT: WILL IT LIGHT?

Year group: 4 | Module 3: Switched On. Lessons 3, 4

Curriculum statement:

Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.

Activity instructions

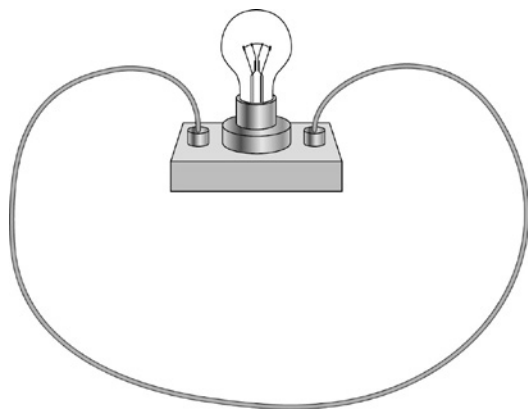
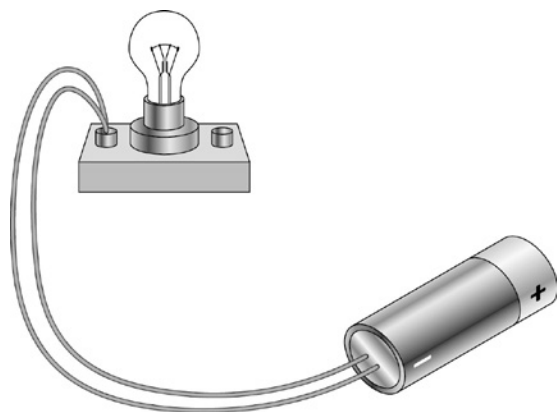
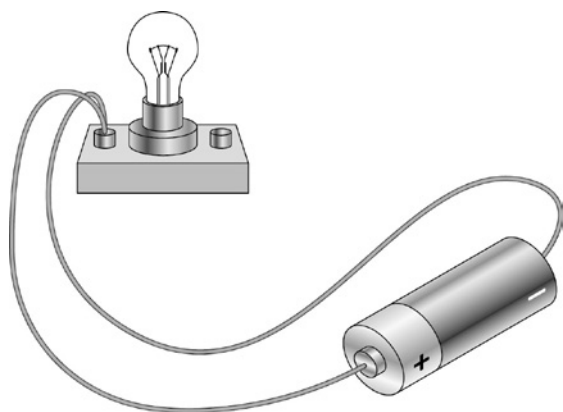
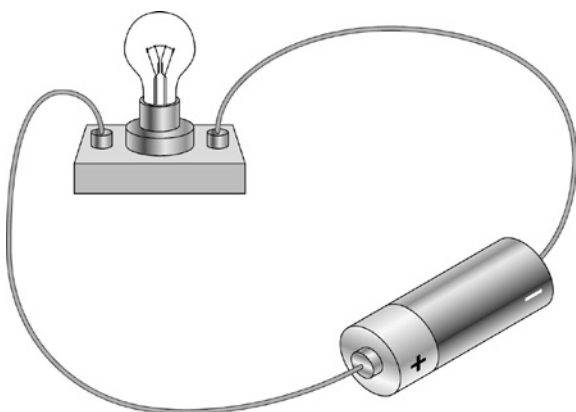
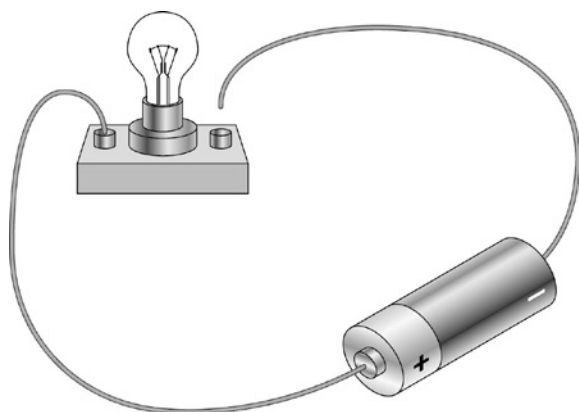
Children will have answered some of the questions in this activity in their challenge in lesson 4, when they identified whether or not a circuit would work and how to correct a circuit that does not work. Use this selection of images with individual children to structure a conversation to check understanding. Ask the following questions about each image: *Will the bulb light? If yes, why? What would happen if you removed a component? If the bulb won't light, why not? Which part of the circuit is wrong? What would you do to put it right? Which three components are needed to make a circuit to light a bulb?*

Questions to check understanding

How do you know this circuit will work? Is it complete? What is the path the electricity will take? What would happen if we took a component out? What is the job of the battery? What is the job of the wire? What is the path of the electricity through the bulb? Where is the break in this circuit? Which part is wrongly connected? How should it be connected?

Curriculum statement is achieved if the child:

Can describe the path of electricity around the circuit. Can explain that for the bulb to light the circuit must be complete. Can describe the importance of connecting the wire to both terminals of a cell and a bulb.



SNAPSHOT ASSESSMENT: SWITCHES

Year group: 4 | Module 3: Switched On. Lesson 5

Curriculum statement:

Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.

Resources

An example of a paper clip toggle switch and a folding press switch, made in lesson 4

2 pieces of wire (to be provided if children would find explanations easier if they can demonstrate)

Activity instructions

Groups of children will have made different switches in lesson 5. Structure a conversation with individual children to check their understanding of how either a toggle switch or a press switch works. Ask: *What is this? Do you know what type of switch it is? What does it do? How does it work? How do you connect it in a circuit? Show me how to close the switch. Will the*

bulb be on or off when a switch in a circuit is closed? How do you open it? What will happen to the bulb when the switch in the circuit is open? Does it matter where the switch is in a circuit?

Questions to check understanding

What is the path of the electricity through the switch? How does it break the circuit?

Curriculum statement is achieved if the child:

Can describe a switch as a controlled break in a circuit that stops electricity from flowing to all components. Can demonstrate how to open and close a switch to turn a bulb off and on. Can explain how a switch works with reference to the path of electricity through the circuit.

SNAPSHOT ASSESSMENT: ELECTRICAL CONDUCTORS AND INSULATORS

Year group: 4 | Module 3: Switched On. Lessons 6, 7, 8

Curriculum statement:

Recognise some common conductors and insulators and associate metals with being good conductors.

Activity instructions

Use this image to structure a conversation with a small group or individual children. You could also ask them to write their answers to the questions or to annotate the picture.

Questions to check understanding

Where have you used a wire like this? What was its function? Why did it need to conduct electricity? How is the insulator useful? Why are insulators essential in mains electricity? Name two objects or materials that can conduct electricity by accident in a mains circuit. Are metals the only materials that conduct electricity? How could you test a material to find out if it is an electrical conductor?

Curriculum statement is achieved if the child:

Can identify the copper wire as a good conductor and explain that it will allow electricity to flow through it when used in a circuit. Can identify the plastic coat as an insulator through which the electricity will not flow and explain that this will protect the person handling it. Can explain that other materials such as water and human tissue are also electrical conductors, but that they do not conduct as well as metals.



SNAPSHOT ASSESSMENT: ELECTRICAL CONDUCTORS AND INSULATORS

Year group: 4 | Module 3: Switched On. Lessons 6, 7, 8

What is this?

What is it used for?

What is it made of?

Which part of it conducts electricity?

Which material is the conductor?

Can you name any other electrical conductors?

What are they made of?

Do you know any metal things that are not electrical conductors?

Which part is an insulator?

Which material is the insulator?

Can you think of another material that is an electrical insulator?

Which of the materials in the image above would you connect to a bulb and battery to make a circuit?

Which part of a bulb should you connect it to in a circuit?

SNAPSHOT ASSESSMENT: FOOD AND NUTRIENTS

Year group: 3 | Module 5: Amazing Bodies. Lessons 1, 2, 3, 9, EL1 | Year group: 4 | Module 4: Where Does All the Food Go? Lesson 1

Curriculum statement:

Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.

Activity instructions

Tell the children that you are going to talk about the nutrients that humans and other animals get from the food they eat.

Ask the children to name three animals and to tell you what they eat. Ask if any of these animals make their own food? Establish with children that they understand that it is not possible for humans or other animals to make their own food, apart from when female mammals produce milk for a short time to feed their babies.

Ask the children to name some nutrients that humans get from the food they eat. Establish that these are carbohydrates, proteins, fats, roughage, minerals and vitamins. Ask the children to tell you what the human body needs each of these nutrients for.

If needed, provide the graphic organiser template.

Questions to check understanding

What nutrients do our bodies need?

Where do we get them from?

What do carbohydrates / proteins / fats / roughage / vitamins and minerals give our bodies?

What might happen if we didn't have (one of the nutrients)?

Curriculum statement is achieved if the child:

Can use three examples to identify that animals cannot make their own food. Can name at least four types of nutrients and give the benefits to the human body with each one.

carbohydrates	proteins	fats	roughage	minerals and vitamins
↓	↓	↓	↓	↓
What are they used for?				
↓	↓	↓	↓	↓
What would happen if they were missing from our diet?				

SNAPSHOT ASSESSMENT: DIGESTION

Year group: 4 | Module 4: Where Does All the Food Go? Lessons 2, 8, 9

Curriculum statement:

Describe the simple functions of the basic parts of the digestive system in humans.

Activity instructions

Tell the children that you are going to talk about the functions of the different parts of the digestive system.

Shuffle the cards and place them face down on the table. Ask the children to turn over one card at a time, name the body part and describe its function in the digestion process in the human body.

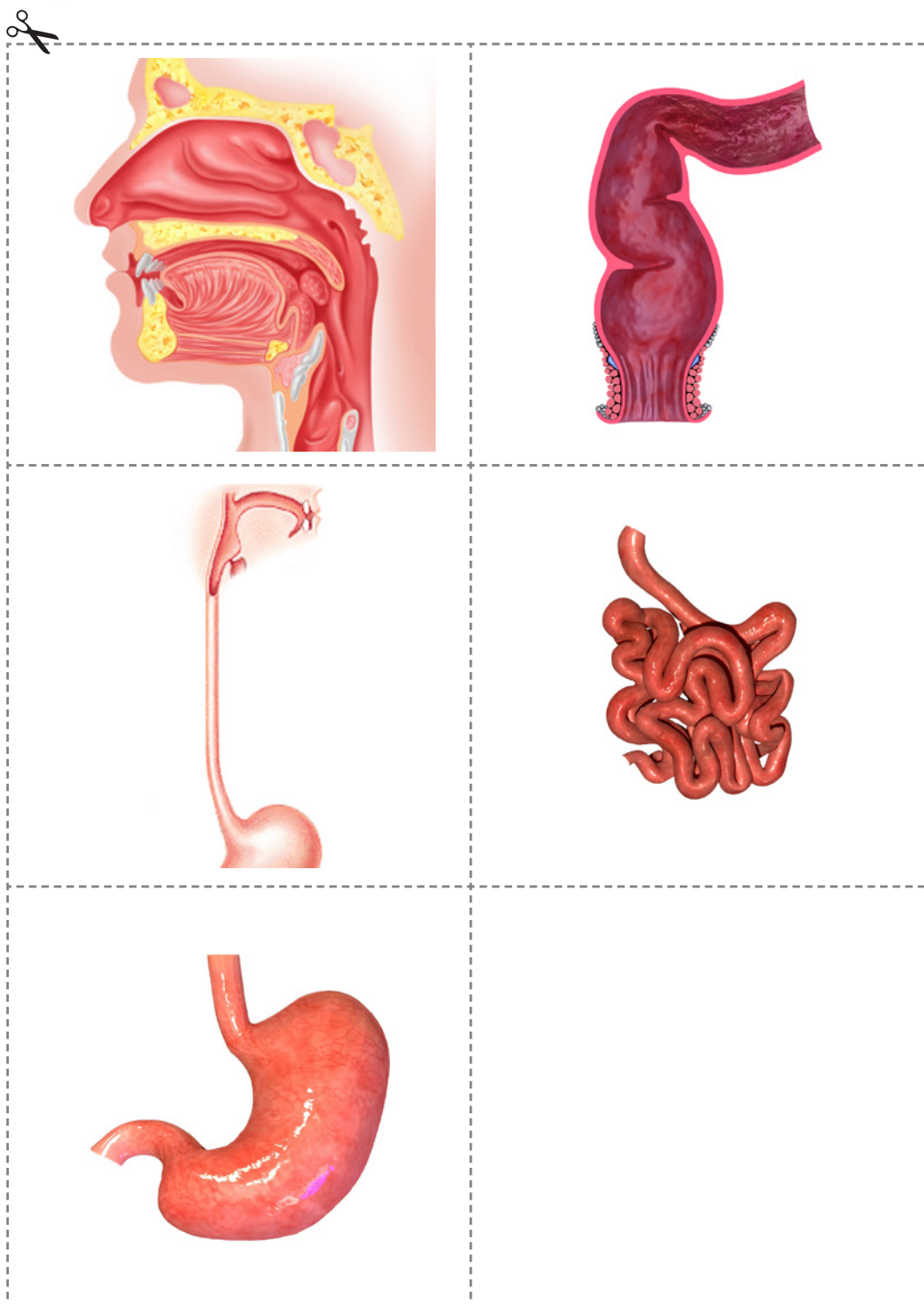
You should expect them to be able to describe at least four correctly. Use the guidance accompanying the curriculum statement to help you to make this judgement.

Questions to check understanding

What happens in the small intestine? Can you name a part of the digestive system that breaks food down mechanically? Can you describe the role of the stomach in the digestive system?

Curriculum statement is achieved if the child:

Can describe the function of at least four parts of the digestive system in the human body, accurately, referring to chemical and mechanical process where appropriate.



SNAPSHOT ASSESSMENT: TEETH TEASER

Year group: 4 | Module 4: Where Does All the Food Go? Lessons 3, 4, 5, EL1, EL2

Curriculum statement:

Identify the different types of teeth in humans and their simple functions.

Resources

Mini whiteboard per child

Whiteboard marker per child

Activity instructions

This activity should be carried out with individual children. Tell the child that you are going to talk about teeth and the function of different types of teeth.

Shuffle the word cards and spread them face up. Ask the child to name the three types of human teeth. Responses must include: molar, canine and incisor.

Ask the child to use the words on the cards to build sentences about the jobs that these different types of teeth do. Tell them that they can use the words as many times as they wish, and that they can add their own words and change sentences they are unhappy with. You should typically expect three sentences. When the child has finished, ask them to take a few moments to read the sentences aloud to ensure that they are happy with them.

Use the guidance accompanying the curriculum statement to establish if the children have identified correctly the simple functions of the different teeth. Ask what else they know about human teeth.

Responses may include: they help with digestion; humans have two sets of teeth.

Questions to check understanding

What do molar teeth do? Why do we need canine teeth? What other type of teeth do humans have?

Curriculum statement is achieved if the child:

Can name three types of human teeth: canine, molar, incisor. Can say that canines rip / tear / shred food; molars chew / crush / grind; incisors cut and snip. Can mention the role played by teeth in digestion: breaking down food ready for swallowing.



teeth	tear	grind
chew	shred	break down
role	snip	cut
function	help	rip

SNAPSHOT ASSESSMENT: WHO EATS WHO?

Year group: 4 | Module 4: Where Does All the Food Go? After Lesson 7

Curriculum statement:

Construct and interpret a variety of food chains, identifying producers, predators and prey.

Activity instructions

Lay out the cards and tell the children that you are going to talk about food chains. Ask: *Which of the cards comes first in a food chain? How do you know?* Responses should include: the producer, which is usually a green plant (in this case, plankton), and does not eat anything else in the chain.

Ask the children to add to the food chain using an arrow card each time. Allow the children time to check for errors. When they are satisfied that the chain is complete, ask if each living thing is a predator or prey, or both. Each time, ask them to give examples to help their interpretation.

For example: The cockle is the prey for the crab and the plaice; the crab is the prey for the plaice and the octopus; it is also the predator for the cockle and the mussel. You should expect at least three correct descriptions.

Questions to check understanding

Which way should the arrow point? Why? Which living things do you know that are both predators and prey? Which living things do you know that are neither predators nor prey? What do you know about a producer? What producers can you name?

Curriculum statement is achieved if the child:

Can name the producers, predators and prey in at least three different food chains. Can build a food chain of three steps using a producer and two consumers from examples provided, using the arrow cards correctly.



Algae



Pond snail
eats algae



Minnow
eats algae



Bass
eats minnow and perch



Perch
eats pond snail and minnow



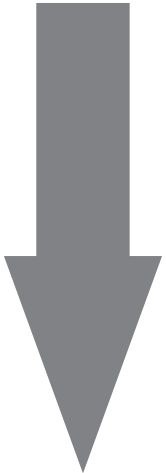
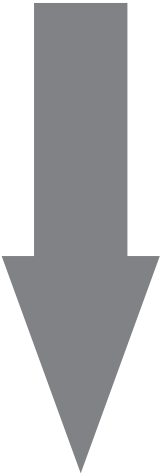
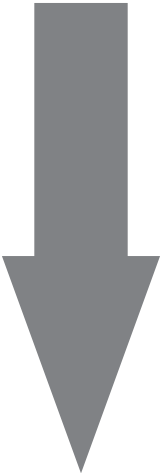

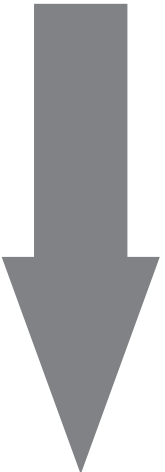
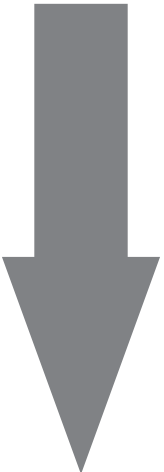



Blue heron
eats perch



SNAPSHOT ASSESSMENT: WHO EATS WHO?

Year group: 4 | Module 4: Where Does All the Food Go? After Lesson 7



SNAPSHOT ASSESSMENT: POSITIVE OR NEGATIVE CHANGE?

Year group: 4 | Module 5: Human Impact. Lessons 1, 2, 3, 4, 5, 6, EL1, EL2

Curriculum statement:

Recognise that environments can change and that this can sometimes pose dangers to living things.

Activity instructions

Ideal for use with individuals or pairs of children.

Show the children the photographs and ask them to describe the human impact on the environment that they show. Show children the human activity grid. Ask them to fill in the gaps with examples of either positive or negative impacts the activities listed have on the environment. Encourage the children to consider different points of view of the people affected by the change, for example: building a supermarket brings jobs, but also adds to traffic, noise and waste, and could destroy the trade of small community shops. Use questioning to explore children's understanding further, in particular in the context of examples from their own learning (and relevant to their locality).

Questions to check understanding

What sorts of impact – positive and negative – are the changes humans are making having on this environment? What do you notice in the photographs? What dangers might the changes pose to living things found in that environment? What other examples of human impacts on the environment have you learned about? What have been the positives and the negatives of those changes?

Curriculum statement is achieved if the child:

Can identify ways in which humans might impact, positively or negatively, on environments. Can identify potential dangers any changes might cause to living things. Can give examples from their own experience (gained through their learning) and relevant to their locality of the impact that humans can have on environments.

SNAPSHOT ASSESSMENT: POSITIVE OR NEGATIVE CHANGE?

Year group: 4 | Module 5: Human Impact. Lessons 1, 2, 3, 4, 5, 6, EL1, EL2

Human activity	Effects on living things	
	Positive	Negative
Quarrying		Habitats lost while the quarrying is going on.
Farming	Farmers can look after the countryside by planting meadow flowers alongside crops or creating hedgerows as habitats or planting trees, for example	Woodland lost when the land was first cleared.
Building houses		Wild habitats lost.
Driving		
Manufacturing wooden furniture		Tree habitats lost.

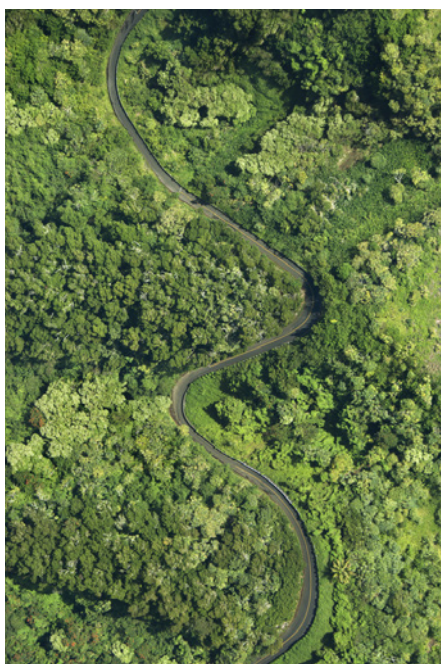
SNAPSHOT ASSESSMENT: POSITIVE OR NEGATIVE CHANGE?

Year group: 4 | Module 5: Human Impact. Lessons 1, 2, 3, 4, 5, 6, EL1, EL2



SNAPSHOT ASSESSMENT: POSITIVE OR NEGATIVE CHANGE?

Year group: 4 | Module 5: Human Impact. Lessons 1, 2, 3, 4, 5, 6, EL1, EL2



SNAPSHOT ASSESSMENT: WHAT IS THE SAME AND WHAT IS DIFFERENT?

Year group: 5 | Module 1: Circle of Life. After whole module

Curriculum statement:

Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.

Activity instructions

This is for use with individuals. Lay the sixteen cards out in front and tell the child you are going to discuss animal life cycles.

Ask them to sort the animals into groups. Ask them to name each group of animals.

(Expected responses: mammals, amphibians, birds and insects.)

Ask the children to talk about the life cycles of two animals of their choosing from different groups.

Tell them to say what they know about each life cycle. Ask: *What is the same about these two life cycles? What is different?*

Repeat for a second pair of animals ideally from the two remaining groups.

Provide the flash cards as prompts to remind the child of what to refer to.

- Key features of the life cycle of a mammal should include: give birth to live young that look like a smaller version of an adult; most have four legs or two arms and two legs; females produce milk to feed babies; most spend their entire lives on land. Some reference to exceptions such as whales and marsupials.
- Key features of an amphibian life cycle should include: spend part of life in water and part on land; hatch in water; breathe with gills when young; metamorphosis takes place meaning the young look entirely different to the adult; lay jelly-like eggs.
- Key features of a description of a life cycle of an insect should include: reference to either complete metamorphosis including a pupa or the incomplete metamorphosis, referring to nymphal stages and shedding of several layers of skin; most hatch from eggs; the habits and habitat of the young is often very different from the adult.
- Key features of a description of a life cycle of a bird should include: lay eggs that have hard shells; hatch after periods of incubation of varying lengths; most are reliant on adults for survival in early stages of growth until ready to leave the nest.

Questions to check understanding

What is similar about the two life cycles you have described? What is different? Are all mammal / amphibian / insect / bird life cycles the same?

Curriculum statement is achieved if the child:

Can clearly describe the differences and similarities between the life-cycles of at least two pairs of animals from mammals, amphibians, insects and birds that are familiar to them.



birth

growth

reproduction

ageing

death

SNAPSHOT ASSESSMENT: WHAT IS THE SAME AND WHAT IS DIFFERENT?

Year group: 5 | Module 1: Circle of Life. After whole module

elephant



hedgehog



bat



polar bear



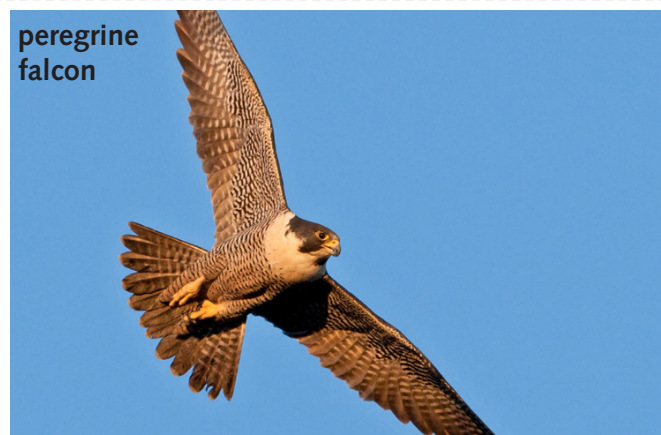
emperor penguin



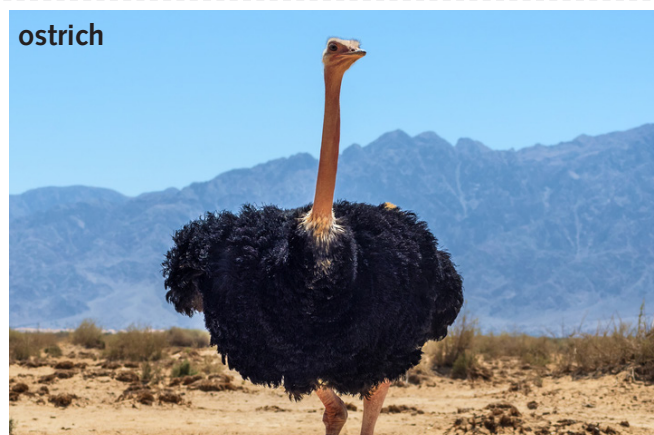
blue tit



peregrine falcon



ostrich



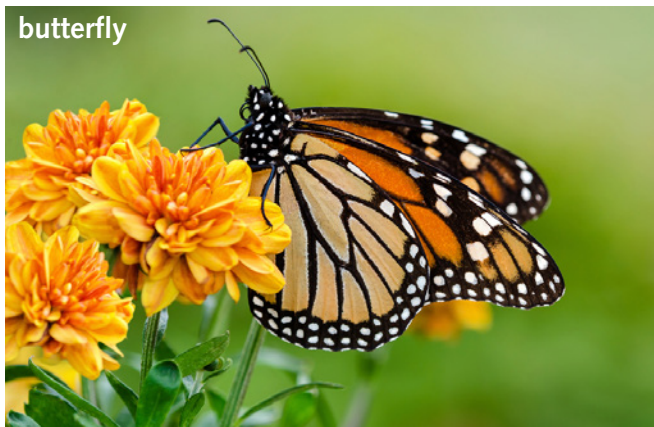
SNAPSHOT ASSESSMENT: WHAT IS THE SAME AND WHAT IS DIFFERENT?

Year group: 5 | Module 1: Circle of Life. After whole module

ladybird



butterfly



moth



bee



lizard



salamander



frog



toad



SNAPSHOT ASSESSMENT: STARTING ALL OVER AGAIN - PLANTS

Year group: 5 | Module 2: Reproduction in Plants and Animals. After Lesson 5 | Our Changing World. After whole module

Curriculum statement:

Describe the life process of reproduction in some plants and animals.

Activity instructions

Work with a group of three children. Tell them that you are going to talk about reproduction in plants. Show the children the images and accompanying word bank. Allocate an image to each child and tell them to choose any word / phrase cards that will help them to explain how the plant reproduces. Then ask each child to present their explanations. Others can join in if they need help. Responses should include reference to key parts of the plants.

Ask the group: *What similarities and differences in reproduction do you notice between these three plants?* Responses should indicate that flowering plants can reproduce sexually or asexually and should explain what these terms mean. They should refer to sexual reproduction in plants, including the process of fertilisation to produce seed and needing both male and female parts. In asexual reproduction, no fertilisation occurs. Examples of asexual reproduction are when new plants are produced from tubers, bulbs and runners.

Questions to check understanding

How does this plant reproduce? Which parts of the plant are involved in reproduction? Does the new plant look like the one it came from? Is this the same for all plants like this?

Curriculum statement is achieved if the child:

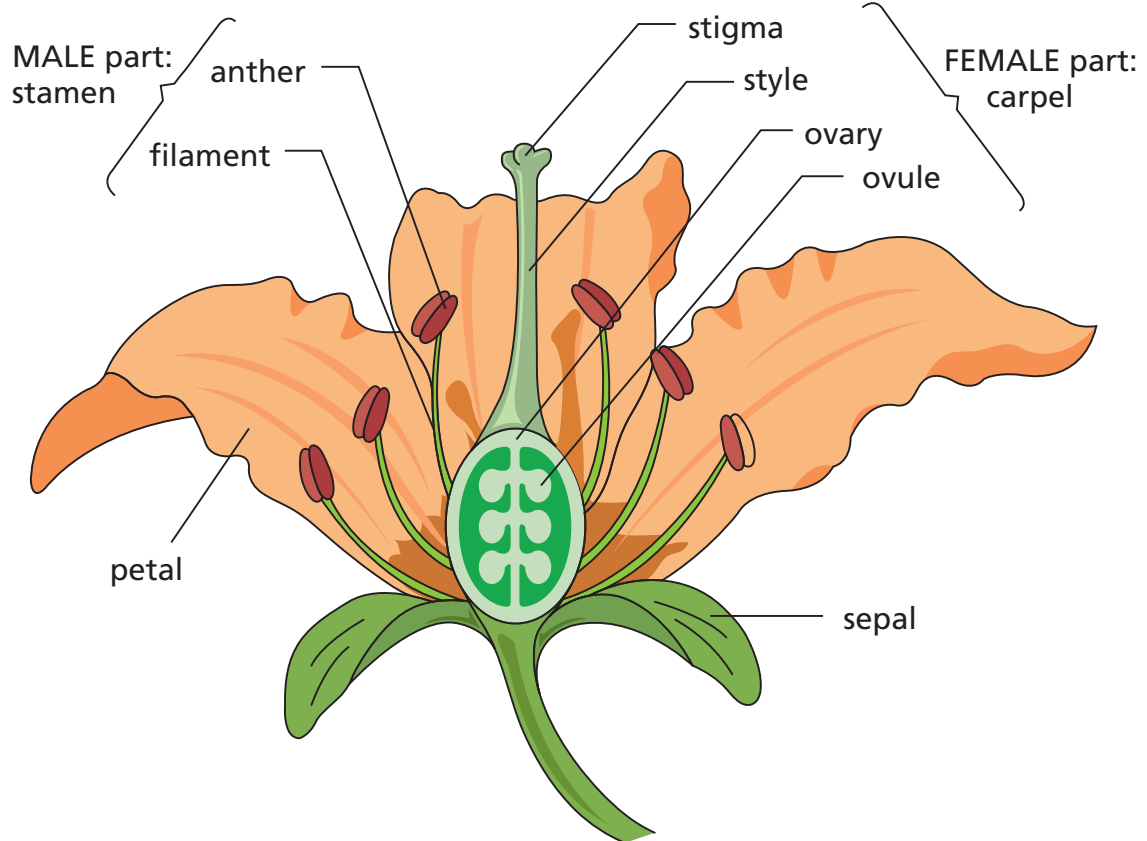
Can describe how a given plant reproduces. Can name the parts of the plant involved in reproduction. Can say whether this is sexual or asexual reproduction.



below ground	above ground	tubers	bulbs
runners	root	stem	store food
asexual	sexual	male	female
simple flower	compound flower	carpels (stigma, style, ovary)	stamen (pollen, anther, filament)
pollinated	ovary	fertilisation	fruit

SNAPSHOT ASSESSMENT: STARTING ALL OVER AGAIN - PLANTS

Year group: 5 | Module 2: Reproduction in Plants and Animals. After Lesson 5 | Our Changing World. After whole module



SNAPSHOT ASSESSMENT: STARTING ALL OVER AGAIN - ANIMALS

Year group: 5 | Module 2: Reproduction in Plants and Animals. After Lesson 5 | Our Changing World. After whole module

Curriculum statement:

Describe the life process of reproduction in some plants and animals.

Activity instructions

Work with pairs of children. Lay out the animal photo cards and tell the children that you are going to talk about reproduction in different types of animal.

Ask them to choose an animal whose reproduction they know about and to say which animal group it is from, and then to describe briefly the process of reproduction for that animal.

Ask the children to do this for at least two different animals, each from a different animal group.

They should refer to:

Amphibians: Fertilisation takes place outside the female body. The female lays many soft, jelly-covered eggs in water, which the male fertilises with a cloud of sperm. The fertilized eggs are left alone by both parents, and the young that hatch survive on their own.

Insects: These reproduce sexually and fertilisation takes place inside the female body. In many species the eggs are deposited outside the female, while in others they develop inside the female and are born live. The female of some species can reproduce without a male, for example stick insects

Birds: Sperm from males fertilise female eggs inside her body. Young hatch from eggs with a hard protective shell.

Mammals: All mammals reproduce with sperm from male of the species fertilising the egg inside the female body. The female gives birth to live young.

Questions to check understanding

What are the main features of reproduction for this group of animal? Is the way they produce different from amphibians / mammals / birds / insects?

Curriculum statement is achieved if the child:

Can describe process of reproduction in at least two animals, each from different groups.

Can describe the main differences between the ways in which different animals groups reproduce.

SNAPSHOT ASSESSMENT: STARTING ALL OVER AGAIN - ANIMALS

Year group: 5 | Module 2: Reproduction in Plants and Animals. After Lesson 5 | Our Changing World. After whole module

elephant



hedgehog



bat



polar bear



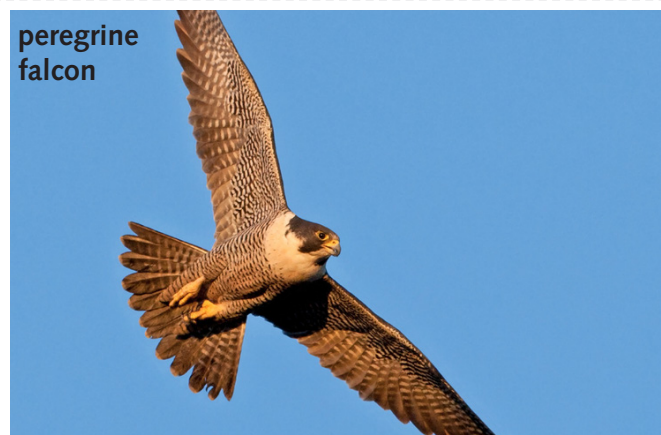
emperor penguin



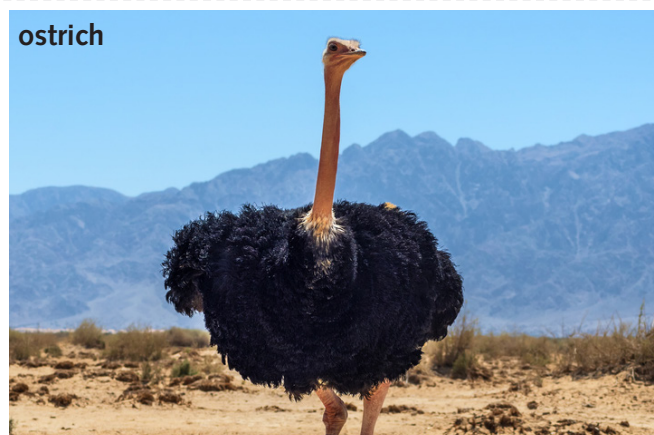
blue tit



peregrine falcon



ostrich



SNAPSHOT ASSESSMENT: STARTING ALL OVER AGAIN - ANIMALS

Year group: 5 | Module 2: Reproduction in Plants and Animals. After Lesson 5 | Our Changing World. After whole module

ladybird



butterfly



moth



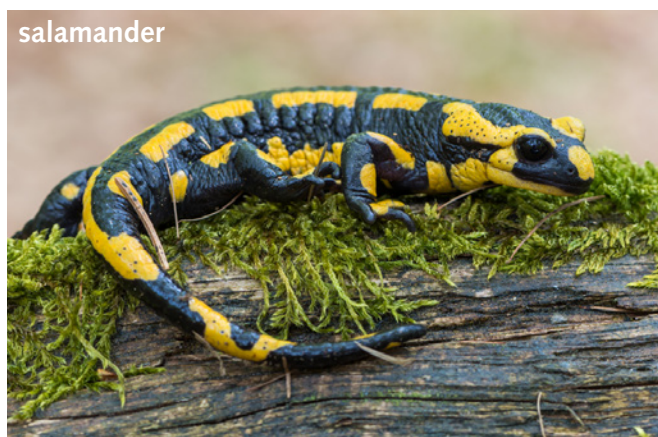
bee



lizard



salamander



frog



toad



SNAPSHOT ASSESSMENT: BIRTH TO OLD AGE

Year group: 5 | Module 2: Reproduction in Plants and Animals. After Lesson 8

Curriculum statement:

Describe the changes as humans develop to old age.

Activity instructions

This is for use with individual children. Show the child the life cycle diagram and tell them that you are going to talk about how humans change as they grow older.

Ask the child to choose part of the life cycle. Ask them to describe the changes that take place at this stage to both males and females.

Ask them to describe the changes for at least two more periods in a human life using the words in the life cycle diagram as prompts.

Questions to check understanding

What are the physical changes that take place at this stage of the life cycle? Are there any emotional changes?

Curriculum statement is achieved if the child:

Can describe the physical changes that take place at three different stages of the human life cycle.



Birth to childhood

Childhood to puberty

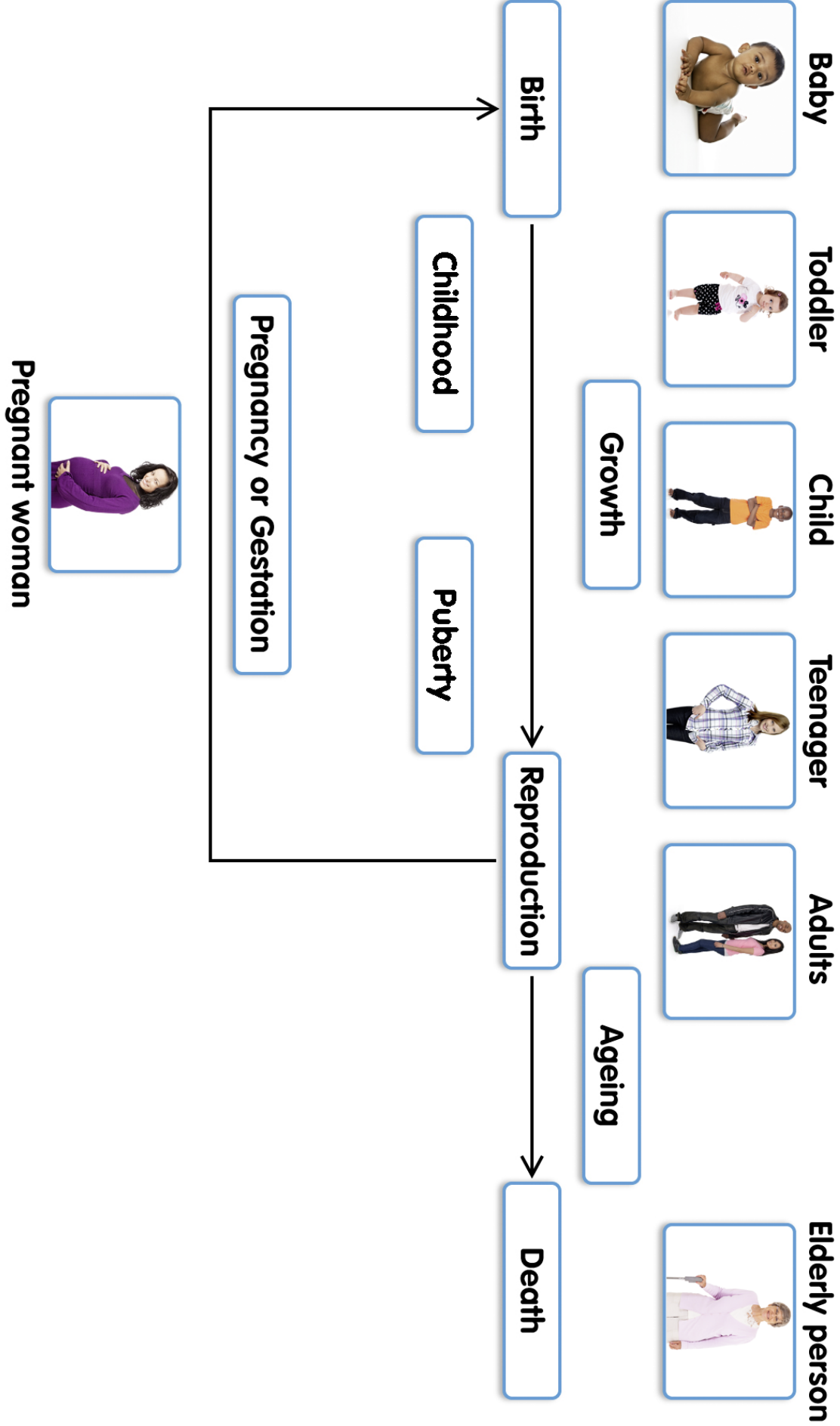
Puberty to adulthood

Adulthood to old age

Old age to death

SNAPSHOT ASSESSMENT: BIRTH TO OLD AGE

Year group: 5 | Module 2: Reproduction in Plants and Animals: After Lesson 8



SNAPSHOT ASSESSMENT: DEFINING PROPERTIES

Year group: 5 | Module 3: Get Sorted. Whole module

Curriculum statement:

Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.

Resources:

Loop card game (see below)

Selection of materials, including different metals and plastics (each of the properties to be assessed should be represented at least once)

Activity instructions

This activity is for individual children or small groups.

Tell the child / children to match the words and definitions on the cards one by one. If all the cards are correctly arranged they will form a complete loop with the word on the last card matching the definition on the first card.

Listen and observe, but do not question or intervene unless the children are completely stuck. When the loop is completed, ask questions to clarify understanding of any words that caused difficulty.

Note: the property terms **thermal conductor**, **thermal insulator**, **impermeable** (waterproof), **viscosity**, **brittle**, **ductile**, **malleable** and **durable** may not have been explicitly taught before. The definitions of other terms may have been refined during this module.

Remove the cards and show the selection of objects. Choose an object (with properties for which you need further assessment information) and ask a child to describe it using all the property words that apply. If specific

words are not being used, ask the child to find the materials with that property. Repeat as necessary.


Note: The words **transparent**, **translucent**, **opaque**, **flexible**, **rigid** and **stiff** are not included on the cards, although related words are used. If children do not use these words when describing the materials, teachers may want to include them in questioning.

Questions to check understanding

What is the opposite of this property? How would you test if a material had this property? What types of material usually have this property? How are these materials similar and different?


Curriculum statement is achieved if the child:

Can match the words to their definitions. Can use the words to describe materials. Can give properties that are opposites. Can recognise which materials have a particular property.

 <p>hard to break or damage</p>	<p>FOLD</p> <p>hardness</p>	<p>CUT</p> <p>how easy it is to dent or scratch</p>	<p>FOLD</p> <p>transparency</p>
<p>how much light it lets through</p>	<p>electrical conductor</p>	<p>electricity passes through it easily</p>	<p>flexibility</p>
<p>how easy it is to bend or twist</p>	<p>strength</p>	<p>how easy it is to break or tear</p>	<p>thermal insulator</p>
<p>heat does not easily pass through it</p>	<p>impermeable</p>	<p>will not let something (such as water) through</p>	<p>malleable</p>

SNAPSHOT ASSESSMENT: DEFINING PROPERTIES

Year group: 5 | Module 3: Get Sorted. Whole module

	FOLD ↓	CUT ↓	FOLD ↓
can be shaped by squashing or hammering	electrical insulator	electricity does not pass through it	permeable
will let something pass through (often water)	ductile	can be stretched or rolled until very thin	elastic
can be changed in shape but springs back to its original shape	thermal conductor	heat passes through it easily	absorbent
soaks up and holds water	magnetic	attracted to a magnet	viscosity
how thick and sticky a liquid is	brittle	breaks or snaps easily	durable

SNAPSHOT ASSESSMENT: WHY AM I MADE FROM THIS?

Year group: 5 | Module 4: Everyday Materials. Whole module

Curriculum statement:

Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.

Resources

One or more collections of the same type of object made from different materials, for example, bags made from plastic (thin and thick), paper, leather, cotton, waterproof fabric; bowls made from wood, china, card (disposable party bowls), plastic, metal, glass; cups / beakers made from metal, plastic (thin disposable and thick reusable), glass, china (include metal or plastic insulated cups)

Samples of different types of plastic and metal.

Activity instructions

This activity is for individual children or small groups.

Tell the child or group to compare the different objects in a collection.

Ask: *What are the objects made from? Where or when would you use each one? What different properties do the materials have which make them suited for the purpose?*

Show the metal and plastic samples. Tell each child to choose one for a particular purpose and to explain why it is suitable, for example, for the frame of a camping chair, a window frame, a clothes peg, sandwich packaging, a nail, the frame of a kite, the skin of a kite, a pencil pot.

Questions to check understanding

What specific purpose does this item have? Will it get hot? Might it get damaged? What would you put into it? Does it need to be waterproof? Which of these [...] are light / brittle / good thermal insulators? What properties would a suitable material for [...] have? How are the metals / plastics similar? How are they different?

Curriculum statement is achieved if the child:

Can give similarities and differences between materials based on properties that can be tested. Can describe the link between the specific functions of objects and the properties of the materials they are made from. Can choose a suitable material for a purpose by considering its properties. Recognises that metals and plastic are categories of materials; the individual materials have common properties but also have differences that make them suited to different uses.

SNAPSHOT ASSESSMENT: SORT IT OUT - SEPARATING MATERIALS

Year group: 5 | Module 5: Marvellous Mixtures. Lessons 1, 4, 5, EL2

Curriculum statement:

Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.

Activity instructions

This activity is for individual children or pairs.

Lay out the mixtures cards and the equipment cards separately. Ask the child / pair to match each mixture in turn with the equipment they could use to separate it. Tell them to leave to one side any mixtures they would not be able to separate with the equipment shown.

For each mixture, ask them to explain their choice and to describe how they would carry out the separation.

Return to the mixtures that the children have put to one side (which should be the sugar and sand, and the pins and stones). For each one ask: *How could you separate this mixture? What else would you need?*

Questions to check understanding

What is this equipment called? What is the name of this method of separation? Is there any other equipment / method that would work for this mixture? Why would this equipment not be suitable? What would happen if you tried this method? How did you decide which sieve to choose?

Curriculum statement is achieved if the child:

Can recognise and name separation methods and equipment. Can choose a suitable method of separating each of the mixtures. Can sequence processes with more than one stage. Can describe the process and give a simple explanation of how it works. Knows that the solid is still present and so can be recovered by evaporating the liquid. Knows that a dissolved solid cannot be separated by filtration as the solid particles will also pass through the filter. Can describe how to evaporate the liquid and condense the vapour to separate a solid and a liquid from a solution.



Pasta and lentils



Granulated sugar, rice and beans



Drawing pins and small stones



Sugar and sand

SNAPSHOT ASSESSMENT: SORT IT OUT: SEPARATING MATERIALS

Year group: 5 | Module 5: Marvellous Mixtures. Lessons 1, 4, 5, EL2



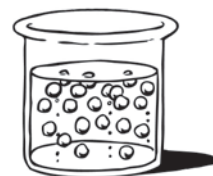
Sand and small seeds



Sand and water



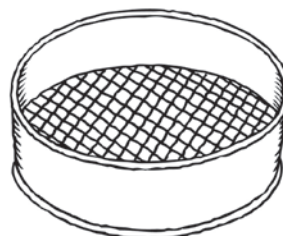
Sugar dissolved in vinegar



Peas and water



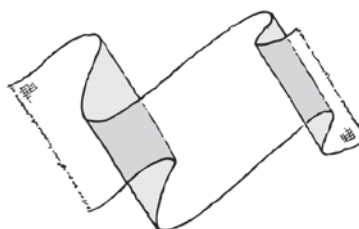
Fine sieve



Coarse sieve



Filter funnel



Fine gauze

SNAPSHOT ASSESSMENT: SOLUTIONS

Year group: 5 | Module 5: Marvellous Mixtures. Lessons 2, 3, 4, 5

Curriculum statement:

Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.

Resources:

Solution of salt and water, in a clear container
Solution of coloured bath salts and water, in a clear container
Saturated sugar solution in water with some sugar in the bottom
Sugar dissolved in oil or vinegar
2 suspensions in clear containers, for example, of talc, chalk, flour, ground spices in water
Sand and water in a clear container
Funnel and filter paper

Activity instructions

This activity is for individual children or pairs.

Tell the child / pair that each container has a solid and a liquid in it. Ask them to sort the containers into two or more groups, and then to explain how they have grouped them.

If the child does not include the words 'soluble', 'insoluble', 'solution' or 'suspension', ask questions to elicit the terms.

Show the filter. Ask: *Which of these mixtures could you separate by filtering?* If any children suggest the sugar and water, ask: *Would all the sugar be separated out?*

Ask: *How could you separate out the solid from a solution, for example the salt from the water? What would you need to do to get back the liquid as well?*

Questions to check understanding

How do you know that the solid in this container has dissolved? What has happened to the solid? What is a solution? How is the solution different from the suspension? Why do you think that there is sugar at the bottom of the sugar solution? What could you do to dissolve the rest of the sugar? (Add more water, heat it.) Would this process work with the oil / vinegar as well as the water?

Curriculum statement is achieved if the child:

Can distinguish between solutions and other mixtures of solids and liquids. Can give a simple description of what a solution is. Can show that they understand that the solid is still present and so can be recovered by evaporating the liquid. Knows that a dissolved solid cannot be separated by filtration as the solid particles will also pass through the filter. Can describe how to evaporate the liquid and condense the vapour to separate a solid and a liquid from a solution.

SNAPSHOT ASSESSMENT: CAN WE CHANGE IT BACK?

Year group: 5 | Module 6: Materials: All Change! Whole module

Curriculum statement:

Demonstrate that dissolving, mixing and changes of state are reversible changes. Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

Resources

Label cards – reversible and non-reversible
Sticky notes and pen

Activity instructions

This activity is for individual children or pairs.

Show the headings to the child / pair and ask them to explain what the words mean. Show them the other picture cards and tell them to sort the cards into two sets using the headings.

Ask the children to label any changes they know the name of using the sticky notes. They may not be able to label all the changes but should name: boiling; melting; dissolving; burning; rusting. They may also label mixing and cooking (they may not see these as suitably scientific terms). Discuss and clarify any pictures that they sort or label incorrectly.

Focus on the reversible changes. For each one, ask: *How can you reverse this change?*

Look at the non-reversible changes. Ask: *How can you tell that this is a non-reversible change?* For the burning and rusting, ask: *What is needed for this change to happen? How might you stop it happening?*

Questions to check understanding

What might help you to decide if a change was reversible or non-reversible? What is changing? What is causing the change? What is being produced?

Curriculum statement is achieved if the child:

Can identify which changes are reversible or non-reversible. Can name some reversible and non-reversible changes. Can name or describe how a reversible change can be reversed. Can identify some indicators of a non-reversible change, for example, bubbles, colour change. Can recognise where a new material is being produced, for example, a gas, ash, cooked meat, rust. Can state that rusting happens to metals and needs air (oxygen) and water. Can state that burning requires fuel, oxygen and heat.



SNAPSHOT ASSESSMENT: CAN WE CHANGE IT BACK?

Year group: 5 | Module 6: Materials: All Change! Whole module



SNAPSHOT ASSESSMENT: CAN WE CHANGE IT BACK?

Year group: 5 | Module 6: Materials: All Change! Whole module



Reversible	Reversible	Reversible	Reversible
Non-reversible	Non-reversible	Non-reversible	Non-reversible
Reversible	Reversible	Reversible	Reversible
Non-reversible	Non-reversible	Non-reversible	Non-reversible

SNAPSHOT ASSESSMENT: DRAG FORCES: COMPARE AND CONTRAST

Year group: 5 | Module 7: Feel the Force. Lessons 1, 2, 4, 5

Curriculum statement:

Identify the effects of air resistance, water resistance and friction that act between moving surfaces.

Activity instructions

Use the grid to structure a conversation with a child or small group to elicit understanding of the cause, effect and implications of different drag forces. Children can also complete it independently but make sure that there is opportunity for them to talk about, and give reasons for, their answers. The completed grid is below for guidance regarding acceptable answers.

Questions to check understanding

Are drag forces contact or non-contact forces?
What do they all have in common? What would happen if these forces did not exist? Consider each in turn.

Curriculum statement is achieved if the child:

Can complete the grid with scientifically correct answers (allow alternative examples of how these forces are used). Can also mention other effects such as heat and wear.

SNAPSHOT ASSESSMENT: DRAG FORCES: COMPARE AND CONTRAST

Year group: 5 | Module 7: Feel the Force. Lessons 1, 2, 4, 5

	Air resistance	Water resistance	Friction
Between	Moving object and air		
Effect on motion			Slows the object
Useful for		Stopping you hitting the bottom of a pool when jumping in	
Overcome by		Smaller surface area / streamlining making the surface area of the leading edge as small as possible, with a gradual widening towards the rear	

SNAPSHOT ASSESSMENT: DRAG FORCES: COMPARE AND CONTRAST

Year group: 5 | Module 7: Feel the Force. Lessons 1, 2, 4, 5

Teacher Version

	Air resistance	Water resistance	Friction
Between	Moving object and air	Moving object and water	Moving object and surface
Effect on motion	Slows the object	Slows the object	Slows the object
Useful for	Parachute, glider	Stopping you hitting the bottom of a pool when jumping in	Brakes, walking
Overcome by	Small surface area / streamlining making the surface area of the leading edge as small as possible, with a gradual widening towards the rear lining	Smaller surface area / streamlining making the surface area of the leading edge as small as possible, with a gradual widening towards the rear	Lubrication

SNAPSHOT ASSESSMENT: WHAT IS GRAVITY?

Year group: 5 | Module 7: Feel the Force. Lessons 2, 3, 4, 6, 7

Curriculum statement:

Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.

Activity instructions

Use these images to structure a conversation with individuals or pairs of children to ascertain their understanding of gravity. Make it clear that the images are not to scale.

Image 1

Establish that the circle represents the spherical Earth.

Tell the children to draw people standing on parts of the Earth where people live.

Ask them to draw arrows to show the direction of gravity acting on the people in the places they have drawn them.

Image 2

Tie a piece of string around a ball to hold it securely. Hold the string and let go of the ball so that the ball hangs straight down. Ask the children why it falls towards the ground.

Ask children to look at the image and to say whether the picture of the boy or of the girl correctly shows which way the ball on the string will hang.

Ask them to draw another child somewhere on the surface and to show the direction their ball on a string will hang.

Ask them to add some notes to explain their drawing.

Questions to check understanding

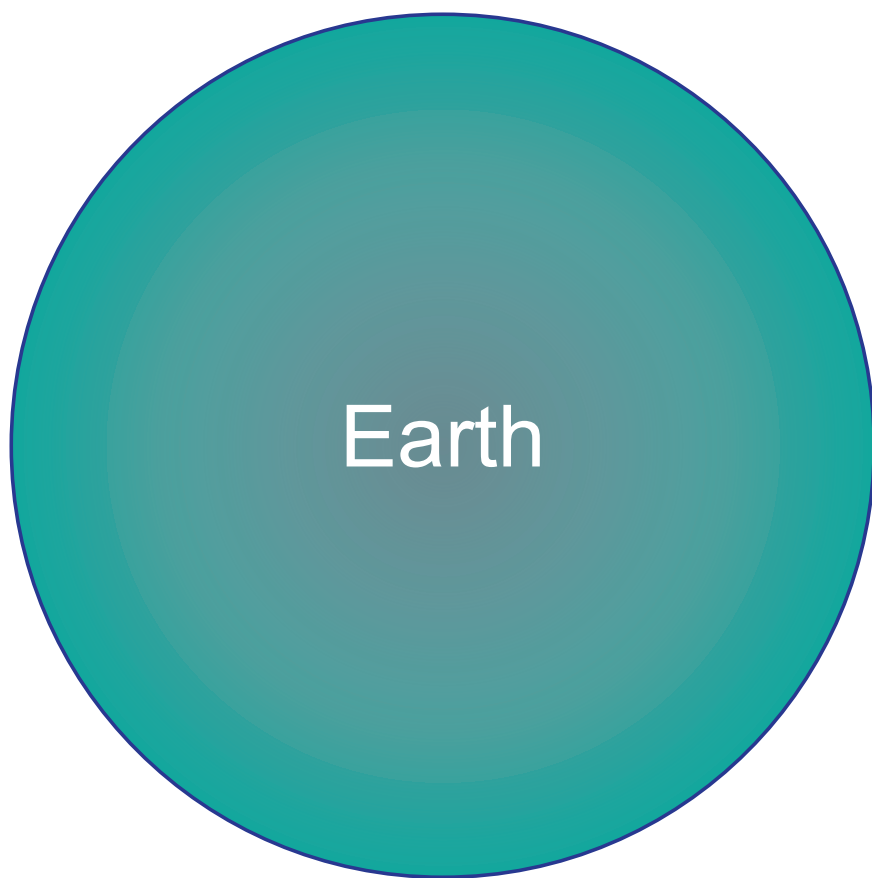
Why do you think people can live in the places you have drawn them? Why have you drawn the ball hanging in that direction? Which way is gravity acting on the child in that position? Which way will it act on the ball when they let it hang?

Curriculum statement is achieved if the child:

Draws people all over the Earth, at the 'top, bottom and sides' of the circle. Uses the idea of gravity in their explanation of why people live all over the land on Earth's surface. Can describe gravity as the pull of the Earth on objects. Draws gravity as arrows from the people on the surface of the earth towards the centre, indicating the direction in which the force pulls. Draws the ball hanging towards the centre of the Earth with the string taut. Can use the idea of gravity in their explanation of why the ball hangs towards the Earth's surface. Can draw arrows to show gravity pulling the ball towards the centre of the earth.

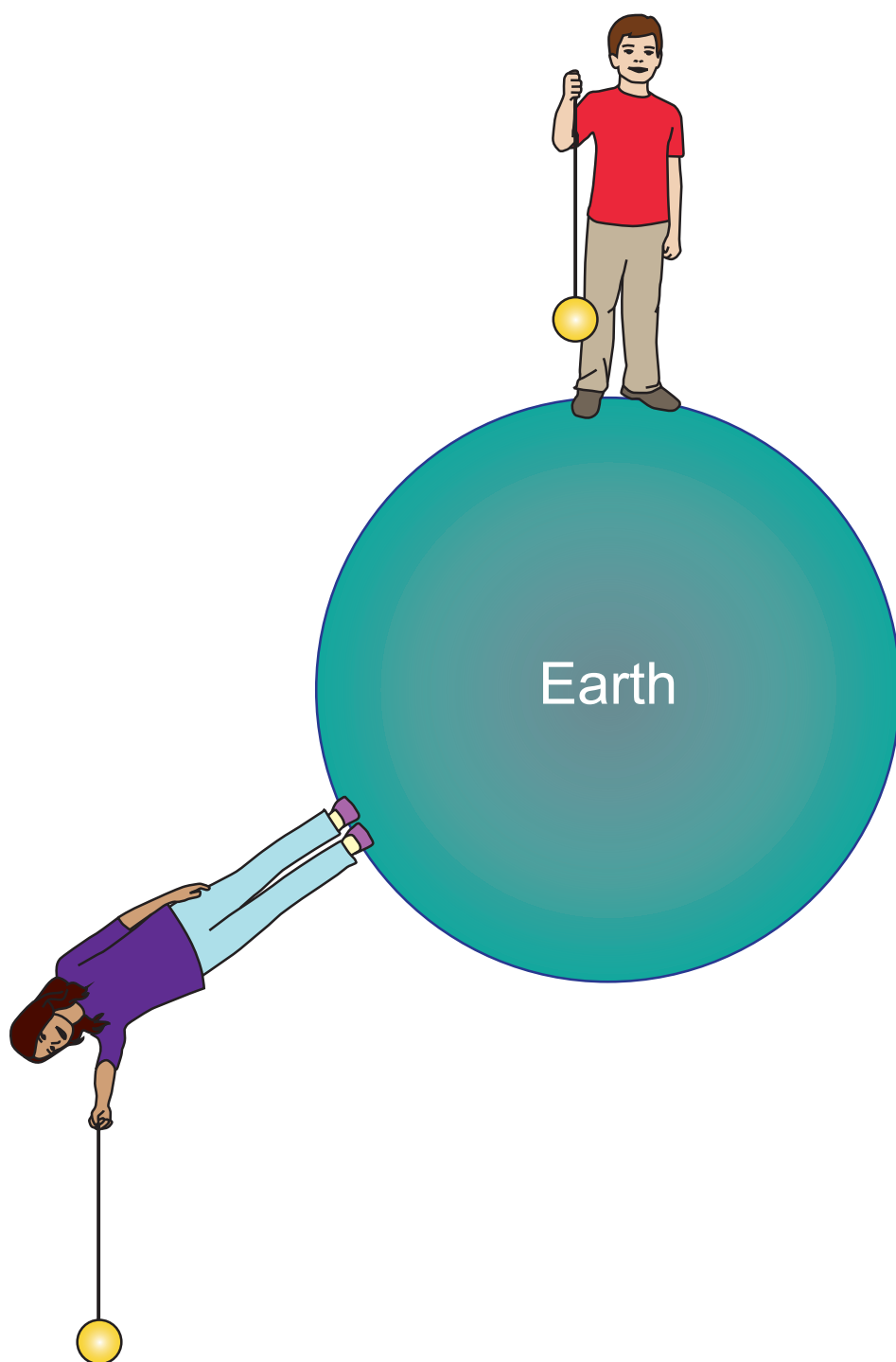
SNAPSHOT ASSESSMENT: WHAT IS GRAVITY?

Year group: 5 | Module 7: Feel the Force. Lessons 2, 3, 4, 6, 7



SNAPSHOT ASSESSMENT: WHAT IS GRAVITY?

Year group: 5 | Module 7: Feel the Force. Lessons 2, 3, 4, 6, 7



SNAPSHOT ASSESSMENT: ANNOTATING MECHANISMS

Year group: 5 | Module 7: Feel the Force. Lessons 8, 9, 10

Curriculum statement:

Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

Resources

Set of labels per child or group

Felt pens

Glue sticks

Activity instructions

Use the diagrams to structure a conversation with individual children or small groups. Give the children the labels with the names of the different mechanisms. Ask them to stick them below the correct mechanism.

Encourage children to talk about how the different mechanisms work. Ensure that they notice the human (hand) that provides the force to start the mechanism moving. Ask them to draw an arrow in blue on the diagram of the lever to show the direction in which the human moves the mechanism. Ask them to draw a red arrow to show the direction of movement that results from the human effort. Ask them to describe how the direction has changed. Give them a small force label and a heavy load label. Ask them where they should go.

Ask the children where they have seen examples of each mechanism in everyday life.

Questions to check understanding

How does a lever or pulley make lifting a heavy load easier? What does a gear do? (All increase the effect of a small force.)

Curriculum statement is achieved if the child:

Can identify correctly a lever, pulley and gear. Can identify how the movement and force is changed. Can give an example of each mechanism in everyday life.



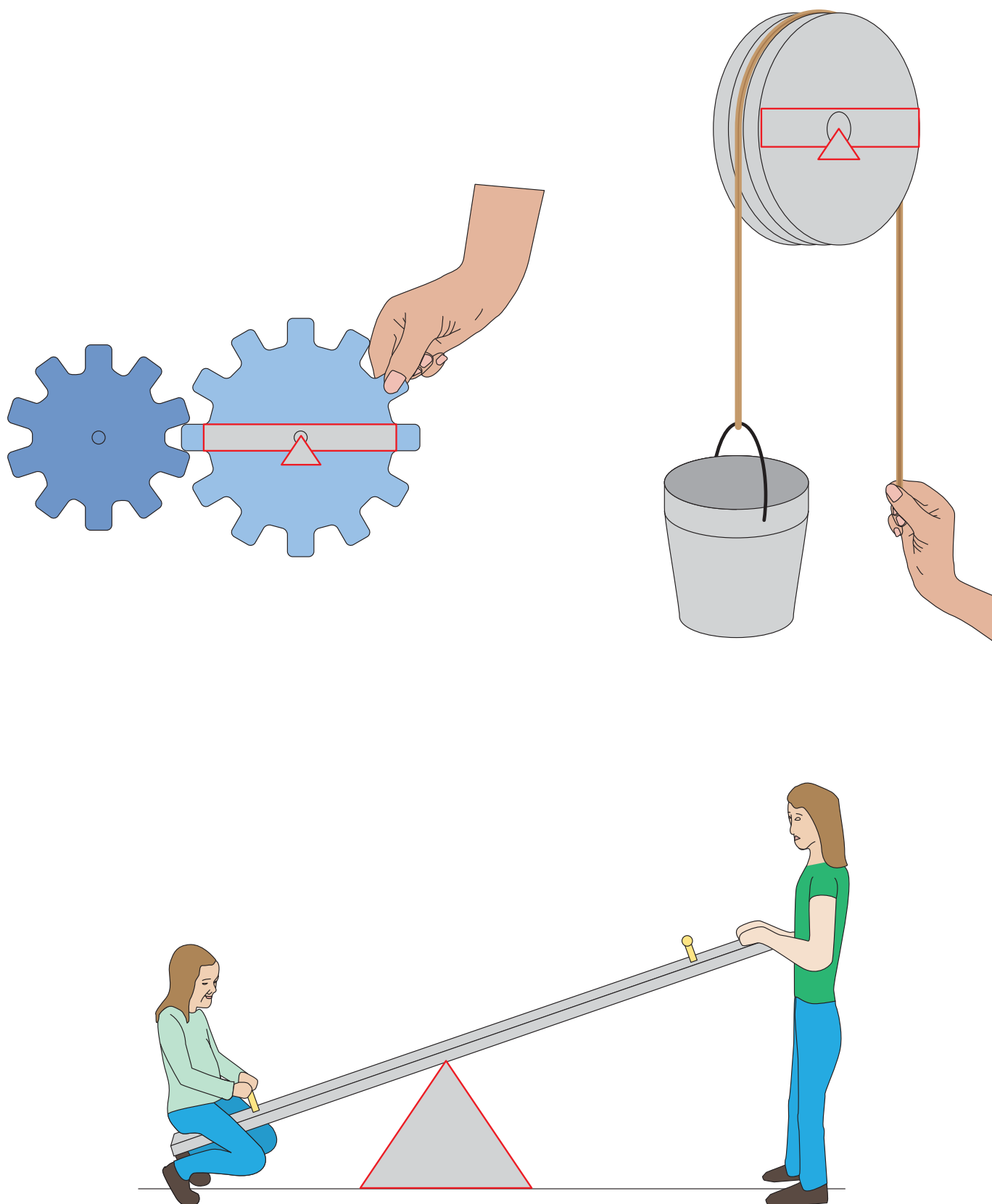
gears	lever	pulley
heavy load	heavy load	heavy load
small force	small force	small force

gears	lever	pulley
heavy load	heavy load	heavy load
small force	small force	small force

gears	lever	pulley
heavy load	heavy load	heavy load
small force	small force	small force

SNAPSHOT ASSESSMENT: ANNOTATING MECHANISMS

Year group: 5 | Module 7: Feel the Force. Lessons 8, 9, 10



SNAPSHOT ASSESSMENT: SOLAR SYSTEM

Year group: 5 | Module 8: The Earth and Beyond. Lessons 1, 2, 6

Curriculum statement:

Describe the movement of the Earth and other planets relative to the Sun in the solar system.

Resources

Sticky notes

Whiteboard

Whiteboard pens

Activity instructions

Ideal for use with pairs of children in a group of up to six.

Ask the children to use the cards to construct concept sentences about the movement of the Earth, and other planets in our solar system.

Explain to children that they can use words as many times as they wish and that they can add words. Tell them that they should check and revise their sentences until they are satisfied with them.

The children's sentences should make reference to the knowledge and understanding described in the guidance statements. If necessary, prompt them with suggestions such as: *Think about where everything is in the solar system; think about what moves and how; think about time taken.*

When children are happy with their sentences, ask them to share them with the group.

Questions to check understanding

What is an orbit? What is at the centre of the orbit? How long does the Earth take to orbit the Sun? Are all planets' orbits the same length? Why are some orbits shorter than the Earth's orbit? Why are some orbits longer? How is an orbit linked with the calendar? In what other way does the Earth move in space? How long does a complete turn / rotation / spin take?

Curriculum statement is achieved if the child:

Can recognise that the Sun is at the centre of our solar system and that the planets travel round it. Can describe an orbit as a planet's path around the Sun. Can explain that a year is the time it takes for the Earth to orbit the Sun. Can explain why other planets in the solar system have longer or shorter years. Can explain that 24 hours is the time it takes for the Earth to complete one rotation.



orbit/s	Sun	spin/s
planets	axis	ellipse
Earth	rotate/s	solar system
different	centre	day
year	length	

SNAPSHOT ASSESSMENT: SHADOW SEQUENCE

Year group: 5 | Module 8: The Earth and Beyond. Lessons 3, 4, 5, 7

Curriculum statement:

Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.

Activity instructions

Ideal for use with pairs of children.

Mix up and place on the table the cards showing the shadow of a tree at different times of day. Tell the children to sequence the cards from early morning to dusk, and to annotate each one to show the position of the sun and the time of day.

Ask the children to describe the changes to the shape and position of the shadow and to explain why it changes. They should refer to the Sun's apparent movement across the sky caused by the Earth's rotation.

Questions to check understanding

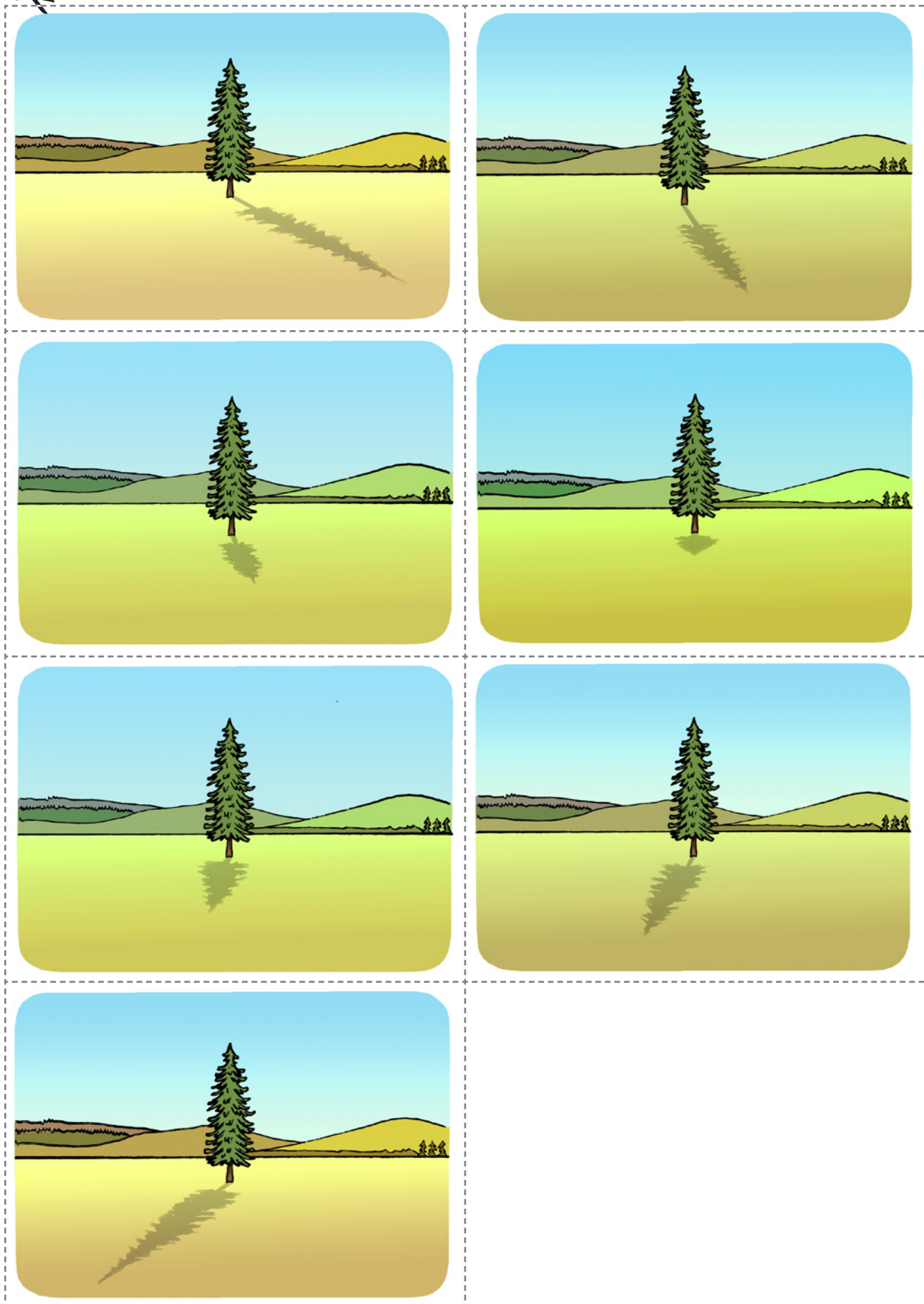
What can you see that gives you an idea of the time? How do shadows change through the day? Which shadows on the cards show early morning, late afternoon, midday? Where does the Sun rise and set? What changes the direction of the shadows? What changes their length? How does day length change across the year? When are days longest / shortest?

Curriculum statement is achieved if the child:

Can explain that shadows are long in the morning because the Sun is low in the sky; that they become shorter towards midday as the Sun rises in the sky and longer towards night as the Sun sinks lower in the sky. Can explain that the directions of shadows change as the Sun moves across the sky from east to west. Can explain that the Sun does not actually move across the sky; that it is the Earth's rotation over 24 hours that causes the apparent movement. Can explain how day and night occur, with reference to the rotation of the Earth; each part of the Earth moves in and out of the sun's light during the course of 24 hours.

SNAPSHOT ASSESSMENT: SHADOW SEQUENCE

Year group: 5 | Module 8: The Earth and Beyond. Lessons 3, 4, 5, 7



SNAPSHOT ASSESSMENT: THE MOON: TRUE OR FALSE

Year group: 5 | Module 8: The Earth and Beyond. Lesson 8

Curriculum statement:

Describe the movement of the Moon relative to Earth.

Activity instructions

Ideal for use with individual or pairs of children.

Give the set of statement cards to the children. Tell them to decide whether each statement is True, False, or if they are Not Sure, and to place each card in a labelled pile as they come to their decision. Encourage the children to think about and share an explanation of how they knew where to place each statement card. Use questions to check understanding and to explore children's thinking, as appropriate.

Questions to check understanding

How do you know whether that answer is true / false? How does the Moon move in relation to the Earth? How long does the Moon take to orbit the Earth? Why does the same part of the Moon always face the Earth? How does the shape of the Moon change? Can you explain why that happens? Children can use the diagram of the Moon's orbit to help them explain their response to this question.

Curriculum statement is achieved if the child:

Can identify that the Moon orbits the Earth and that this takes about 27 days. Can describe how part of the Moon is never seen from the Earth.

Can identify that the Moon appears to change shape gradually during its orbit. Can explain that this is because the amount we can see of the illuminated part that we can see gradually changes.



The Moon is a light source like the Sun.

Sometimes we can see the Moon during the day.

One half of the Moon is always in constant darkness.

The Earth's shadow falling on the Moon makes it appear to change shape.

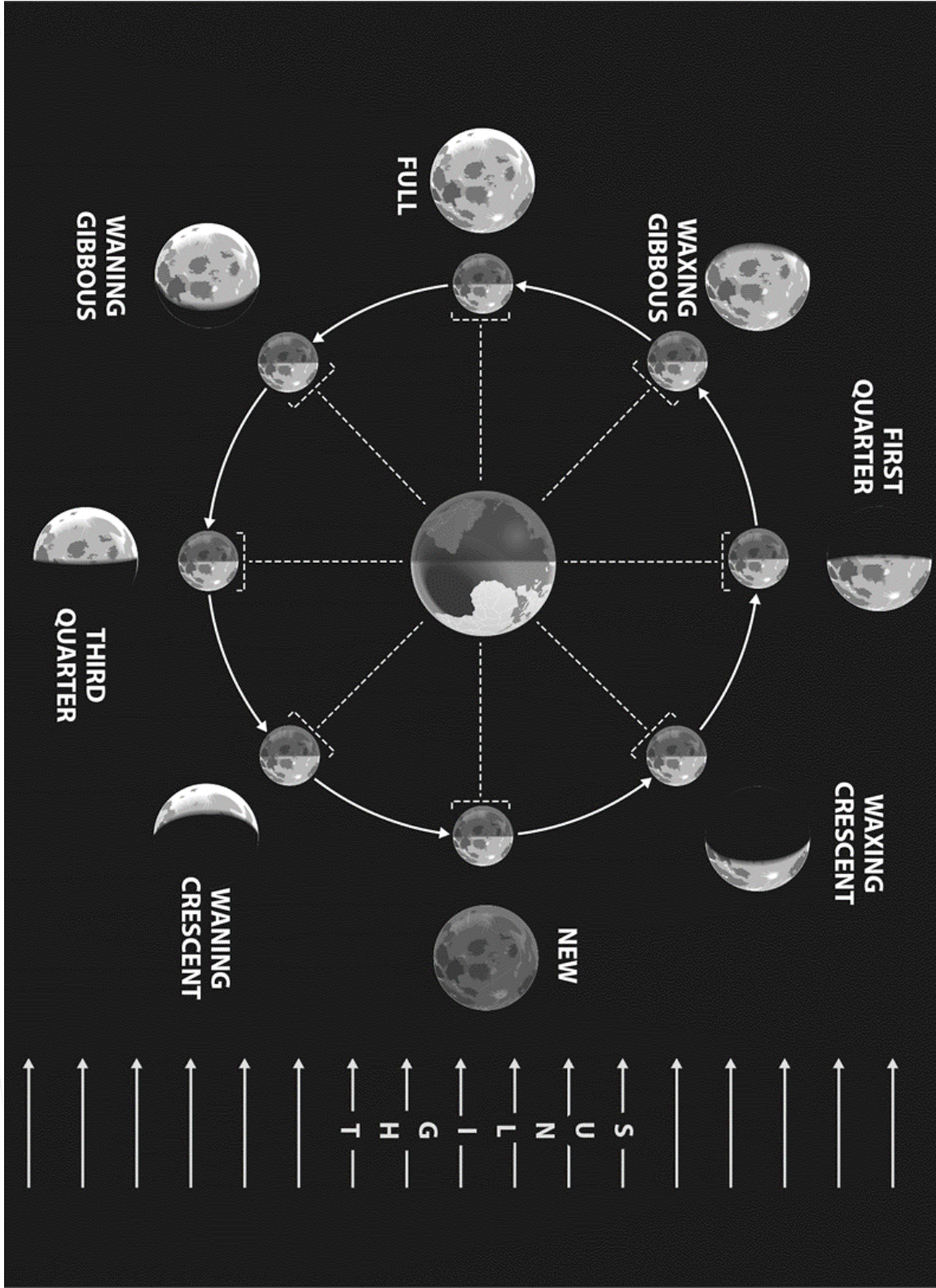
The same part of the Moon always faces the Earth.

We see the Moon because it is illuminated by the Sun.

At night, the Sun disappears and is replaced by the Moon.

SNAPSHOT ASSESSMENT: THE MOON: TRUE OR FALSE

Year group: 5 | Module 8: The Earth and Beyond. Lesson 8



SNAPSHOT ASSESSMENT: WHAT IS THE SAME AND WHAT IS DIFFERENT?

Year group: 5 | Module 1: Circle of Life. After whole module

Curriculum statement:

Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.

Activity instructions

This is for use with individuals. Lay the sixteen cards out in front and tell the child you are going to discuss animal life cycles.

Ask them to sort the animals into groups. Ask them to name each group of animals.

(Expected responses: mammals, amphibians, birds and insects.)

Ask the children to talk about the life cycles of two animals of their choosing from different groups.

Tell them to say what they know about each life cycle. Ask: *What is the same about these two life cycles? What is different?*

Repeat for a second pair of animals ideally from the two remaining groups.

Provide the flash cards as prompts to remind the child of what to refer to.

- Key features of the life cycle of a mammal should include: give birth to live young that look like a smaller version of an adult; most have four legs or two arms and two legs; females produce milk to feed babies; most spend their entire lives on land. Some reference to exceptions such as whales and marsupials.
- Key features of an amphibian life cycle should include: spend part of life in water and part on land; hatch in water; breathe with gills when young; metamorphosis takes place meaning the young look entirely different to the adult; lay jelly-like eggs.
- Key features of a description of a life cycle of an insect should include: reference to either complete metamorphosis including a pupa or the incomplete metamorphosis, referring to nymphal stages and shedding of several layers of skin; most hatch from eggs; the habits and habitat of the young is often very different from the adult.
- Key features of a description of a life cycle of a bird should include: lay eggs that have hard shells; hatch after periods of incubation of varying lengths; most are reliant on adults for survival in early stages of growth until ready to leave the nest.

Questions to check understanding

What is similar about the two life cycles you have described? What is different? Are all mammal / amphibian / insect / bird life cycles the same?

Curriculum statement is achieved if the child:

Can clearly describe the differences and similarities between the life-cycles of at least two pairs of animals from mammals, amphibians, insects and birds that are familiar to them.



birth

growth

reproduction

ageing

death

SNAPSHOT ASSESSMENT: WHAT IS THE SAME AND WHAT IS DIFFERENT?

Year group: 5 | Module 1: Circle of Life. After whole module

elephant



hedgehog



bat



polar bear



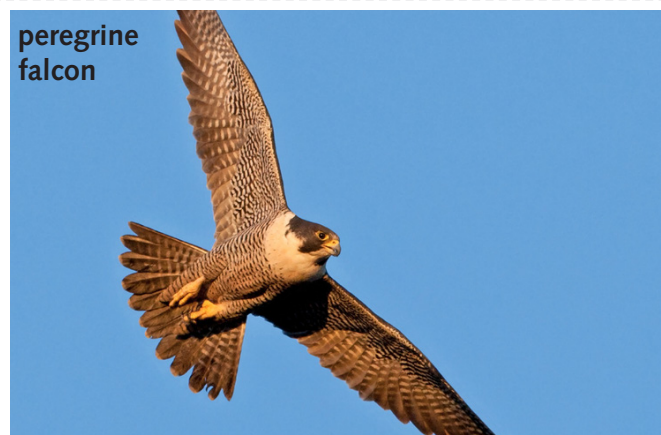
emperor penguin



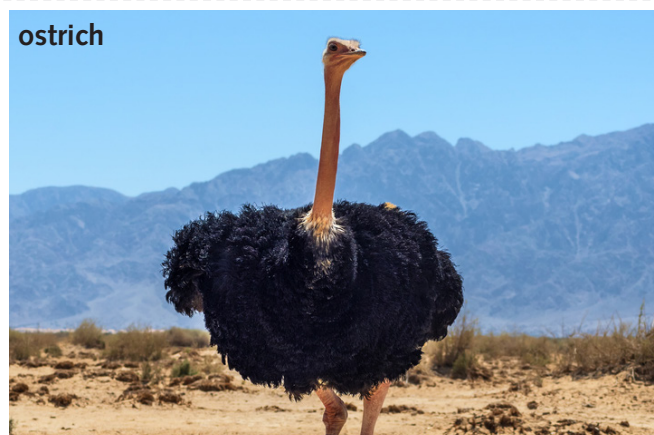
blue tit



peregrine falcon



ostrich



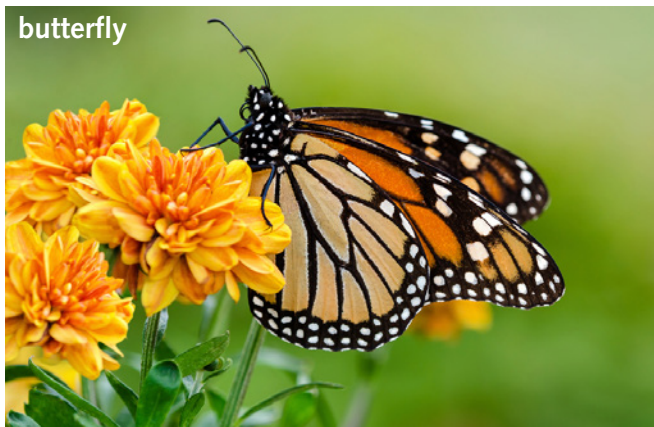
SNAPSHOT ASSESSMENT: WHAT IS THE SAME AND WHAT IS DIFFERENT?

Year group: 5 | Module 1: Circle of Life. After whole module

ladybird



butterfly



moth



bee



lizard



salamander



frog



toad



SNAPSHOT ASSESSMENT: ENVIRONMENTAL CHANGE

Year group: 6 | Module: Our Changing World. Lessons 1, 2, 4, 5 | Module 4: Everything Changes. Lessons 4, 5, 6, 7, 8, EL1

Curriculum statement:

Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Activity instructions

Ideal for use with pairs of children.

Show children the three environments: desert, pond and field. Tell them to choose one and describe its features. Ask them to name some living things that might be found there. Then add three cards showing living things appropriate to that environment.

Ask the children to describe how each living thing that they have chosen is adapted to suit that habitat. If necessary, allow children to refer back to earlier research they have done or to use other information sources to help them.

Place six environmental change cards face down. Tell the children to turn a card over, to think about it and then to suggest how the change might affect the environment of the animals or plants.

Questions to check understanding

What impact would the environmental change have on living things in that habitat? What if the change lasted only a short time? What if it lasted a long time? What if the change was permanent? Which living things would be most likely to survive? Which living things (if any) might become extinct in that environment? Why?

Curriculum statement is achieved if the child:

Can identify characteristics of plants and animals that help them to survive in their environments. Can describe how environmental change may impact on living things in a particular place. Can describe how living things that are better adapted to an environment may be more likely to survive and reproduce. Can explain that living things sometimes change over thousands of years to help them to survive in an environment. Can identify this as evolution.



desert



pond



field

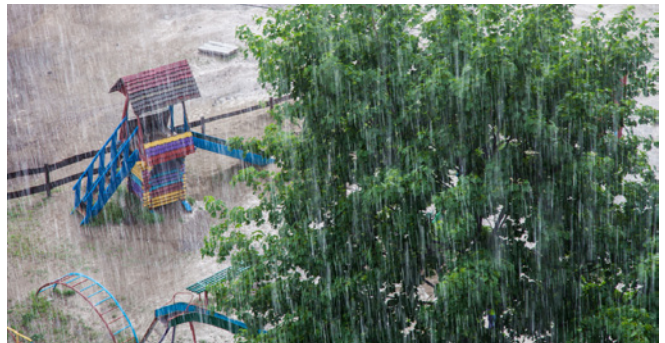
SNAPSHOT ASSESSMENT: ENVIRONMENTAL CHANGE

Year group: 6 | Module: Our Changing World. Lessons 1, 2, 4, 5 | Module 4: Everything Changes. Lessons 4, 5, 6, 7, 8, EL1

Environmental change cards



flood



heavy rain



drought



freezing temperatures



very hot temperatures



human impact – such as buildings,
roads, pollution

SNAPSHOT ASSESSMENT: ENVIRONMENTAL CHANGE

Year group: 6 | Module: Our Changing World. Lessons 1, 2, 4, 5 | Module 4: Everything Changes. Lessons 4, 5, 6, 7, 8, EL1

Living things cards



cactus



frog



harvest mouse



scorpion



fish



rabbit



lizard



water lily



field poppy

SNAPSHOT ASSESSMENT: WHAT IF? CONSEQUENCES

Year group: 6 | Module 4: Everything Changes. Lessons 1, 2, 3

Curriculum statement:

Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.

Activity instructions

Ideal for use with individuals or pairs of children.

Children should select either the giraffe or Emperor penguin to consider during this Snapshot. If they are unfamiliar with both animals, provide suitable reference material for them to use to check their ideas.

Show children the image of the animal they have chosen. Tell them that there is a series of six statements about their animal included in the grid. They must decide whether what is mentioned is an 'inherited' feature of that animal, like having very big feet, or something 'environmental', like the amount of food that is available to the animal to help it grow and survive. They also need to think about the 'consequence' to the animal of what's written. One example has been provided on each grid to help children get started and grids complete with possible consequences is below to guide teachers.

Questions to check understanding

Which features of the animal might be inherited from its parents? Which features could be affected by the environment in which it lives? Is being tall inherited or environmental? What about being strong, healthy or fat? What effect might the environment have on an animal's appearance / health / size / weight?

Curriculum statement is achieved if the child:

Can identify features of living things that show variation from individual to individual. Can suggest what causes variation. Can use the terms inherited and environmental correctly and identify features that are inherited and some that are environmental.



SNAPSHOT ASSESSMENT: WHAT IF? CONSEQUENCES

Year group: 6 | Module 4: Everything Changes. Lessons 1, 2, 3

Inheritance versus environmental or a combination of the two

What if? Giraffe herd

Statement	Inherited?	Environmental?	Consequence
Some adult giraffe are very tall, with longer and stronger legs	Yes		Can defend themselves against predators. Can reach high in trees and get the best food. Successful breeders.
All the leaves on the lower branches have been eaten by other animals			
Lots of rain and plenty of tree growth			
Adult giraffe are small and have shorter and weaker legs			
Weaker giraffe in the herd may become diseased			
Drought conditions – almost no food available nearby until the rains come			

SNAPSHOT ASSESSMENT: WHAT IF? CONSEQUENCES

Year group: 6 | Module 4: Everything Changes. Lessons 1, 2, 3

Inheritance versus environmental or a combination of the two

What if? Emperor penguin huddle

Statement	Inherited?	Environmental?	Consequence
Big adult males with lots of fat	Yes	Yes	Extra fat layers (from large amount of fish caught and eaten) protect against very cold winter weather. Larger overall size means can stay warm longer and protect chick.
Unusually severe winter conditions affect males and eggs / chicks			
Some females are physically stronger than others			
Unusually mild winter weather leads to more chicks surviving			
Some penguin pairs have successfully raised many chicks over the years			
Hungry predators in area			

SNAPSHOT ASSESSMENT: WHAT IF? CONSEQUENCES

Year group: 6 | Module 4: Everything Changes. Lessons 1, 2, 3

Inheritance versus environmental or a combination of the two

What if? Giraffe herd

Statement	Inherited?	Environmental?	Consequence
Some adult giraffe are very tall, with longer and stronger legs	Yes		Can defend themselves against predators. Can reach high in trees and get the best food. Successful breeders.
All the leaves on the lower branches have been eaten by other animals		Yes	Only taller giraffes would be able to reach leafy upper branches of the tallest trees. Any shorter giraffe, or young ones, might starve because they wouldn't have enough to eat. Giraffe might have to eat other food that they can find, or travel to other places to find food.
Lots of rain and plenty of tree growth		Yes	The giraffe herd would all be healthy. They'd have plenty of food and reproduce well. There would be lots of young giraffe born that year.
Adult giraffe are small and have shorter and weaker legs	Yes		May struggle to defend themselves against predators. Could damage or break their legs, because they're weak. Can't reach very high to find food and so might starve when all leaves on lower branches disappear.
Weaker giraffe in the herd may become diseased	Yes	Yes	Predators will catch, kill and eat those animals. If they reproduce their young might be weak too. When there is not much food they would be the first to catch diseases and might die.
Drought conditions – almost no food available nearby until the rains come		Yes	All giraffe in the herd would struggle to survive. The weaker ones and the young calves would be the first to starve, or get ill. The herd would need to move to another area to see if they could find food and water.

SNAPSHOT ASSESSMENT: WHAT IF? CONSEQUENCES

Year group: 6 | Module 4: Everything Changes. Lessons 1, 2, 3

Inheritance versus environmental or a combination of the two

What if? Emperor penguin huddle

Statement	Inherited?	Environmental?	Consequence
Big adult males with lots of fat	Yes	Yes	Extra fat layers (from large amount of fish caught and eaten) protect against very cold winter weather. Larger overall size means can stay warm longer and protect chick.
Unusually severe winter conditions affect males and eggs / chicks		Yes	The thinnest males would struggle to keep warm and look after their egg / chick. If the weather is very bad chicks might freeze, even if their parent tries hard to look after them.
Some females are physically stronger than others	Yes		They would attract the best mate. They would survive better in the hardest conditions – be better at catching food, making journey to bring food to the male and chick. Their chicks would also be likely to be stronger.
Unusually mild winter weather leads to more chicks surviving		Yes	If there are lots of chicks surviving, they will all need feeding. They will need lots of fish to eat to help them to grow to become adult. If lots of fish are eaten and there is a shortage they might not survive beyond being chicks.
Some penguin pairs have successfully raised many chicks over the years	Yes		If the parents are successful breeders then the chicks will probably reproduce well themselves.
Hungry predators in area		Yes	Eggs and chicks might be taken and eaten more often when other food is in short supply for predators. That means fewer chicks fledging successfully and a smaller population to breed in later years.

SNAPSHOT ASSESSMENT: WHO AM I?

Year group: 6 | Module: Our Changing World | Module 8: The Nature Library. Whole module

Curriculum statement:

Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.

Activity instructions

Ideal for use with pairs of children.

Place the cards face up on the table in front of the children. Tell them to begin by sorting the cards into large groups, based on observable characteristics of the animals and plants included. Children should arrive at an initial sort relatively easily; first of all dividing cards into those showing plants and animals, then sub-dividing animals into vertebrates and invertebrates.

Next, ask the children to reorganise the cards once again into sub-groups according to animal / plant observable characteristics. Where necessary, prompt children's thinking by asking them questions. When they have subdivided the cards as far as possible, check whether the children are able to name any of the groups they have created. Provide them with a classification chart, so that they can check their groupings and remind themselves of sub-group names.

Questions to check understanding

These will vary depending on the groups. For example: What characteristics are common to all plants? What characteristics are shared by flowering plants? What characteristics would make a plant, for example, a fern or a moss and not a flowering plant? What characteristics are common to all vertebrate / invertebrate animals? What characteristics are common to specific sub-groups of invertebrate animals, for example molluscs? What characteristics make an animal, for example, a mollusc and not an arthropod (insect)? Do you know the names of any other animals that should belong to the same group? What common characteristics / similarities do animals in that group share? What differences are there between examples of broadly similar animals that might mean they need to be placed into a sub-group?

Curriculum statement is achieved if the child:

Can describe how plants and animals are assigned to broad groups. Can recognise the need to divide very large groups, like plants or vertebrate animals, into sub-groups. Can identify observable characteristics that are similar between animals, which mean that they are grouped together, for example birds. Can suggest differences between birds, for example an owl, eagle, robin and thrush, which might mean that the bird group needs to be divided into sub-groups.



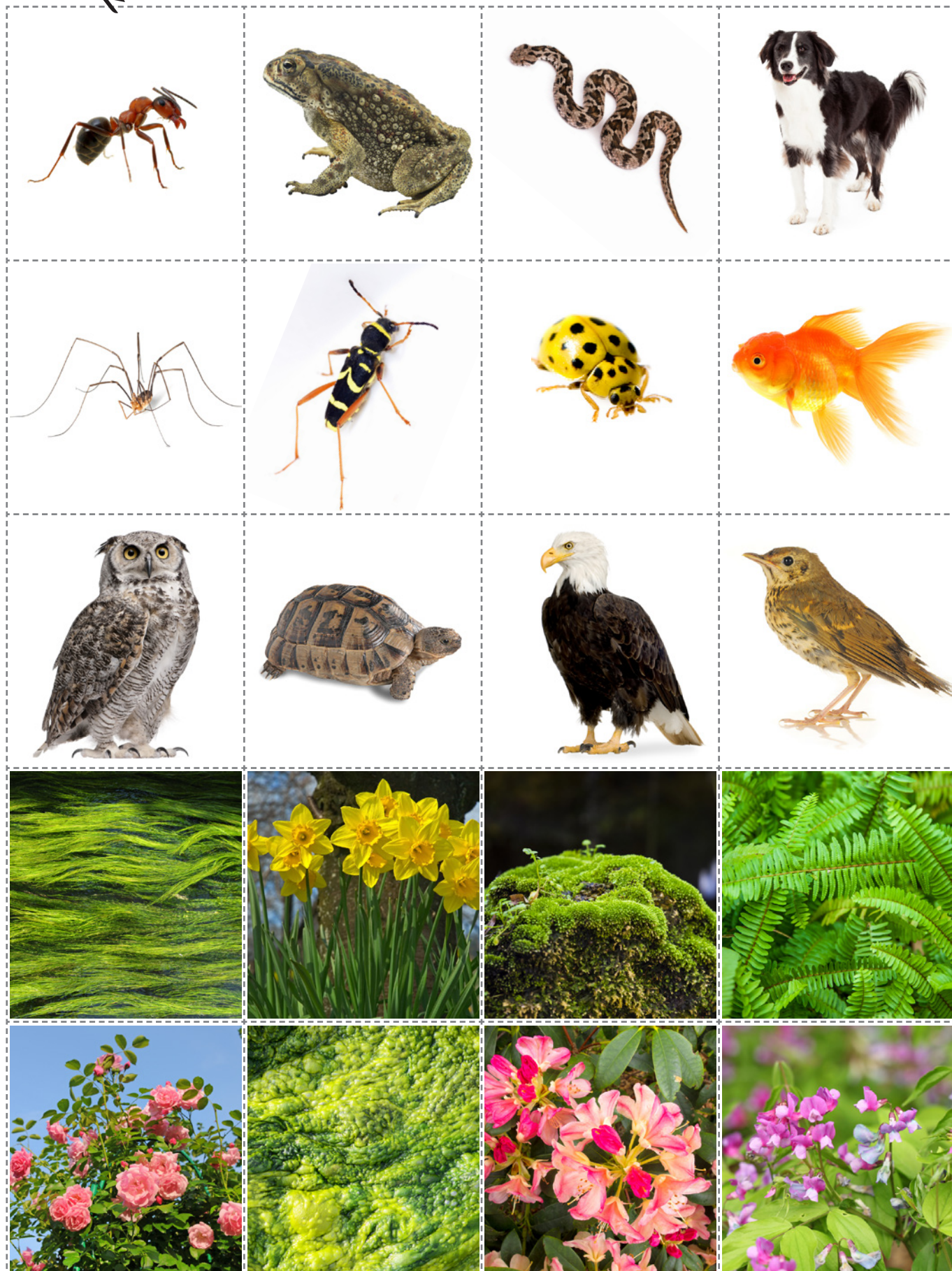
SNAPSHOT ASSESSMENT: WHO AM I?

Year group: 6 | Module: Our Changing World | Module 8: The Nature Library. Whole module



SNAPSHOT ASSESSMENT: WHO AM I?

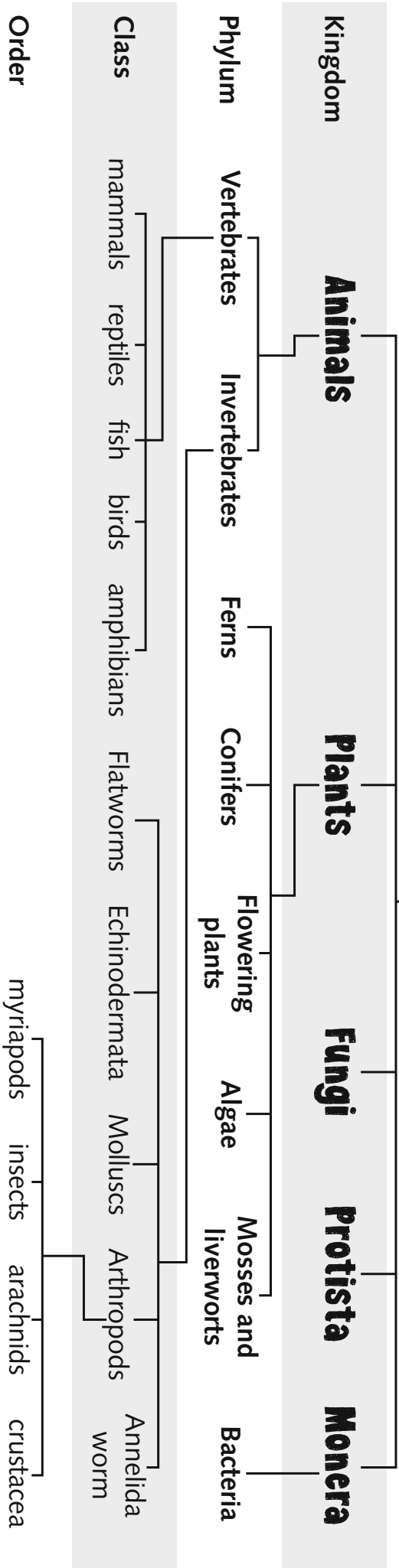
Year group: 6 | Module: Our Changing World | Module 8: The Nature Library. Whole module



SNAPSHOT ASSESSMENT: WHO AM I?

Year group: 6 | Module: Our Changing World | Module 8: The Nature Library: Whole module

Living things



Kingdom	Animals	Plants	Fungi	Protista	Monera
Phylum	Vertebrates	Invertebrates			
Class	mammals	reptiles	fish	birds	amphibians
Order					
Family					
Genus					
Species					

SNAPSHOT ASSESSMENT: CLASSIFICATION: TRUE OR FALSE

Year group: 6 | Module: Our Changing World | Module 8: The Nature Library. Whole module

Curriculum statement:

Give reasons for classifying plants and animals based on specific characteristics.

Activity instructions

Use with individual or pairs of children.

Give the set of statement cards to the children. Tell them to decide whether each statement is True or False, or if they are Not Sure, and to place the cards in a labelled set. Ask them to explain how they knew where to put each card. The table below showing the correct answers and explanations is for teacher use.

Encourage them to check their sorting using the classification chart. If they made any mistakes, give them the opportunity to explain why these were wrong.

Questions to check understanding

How do you know whether that answer is true / false? Are you sure? Can you explain how you know? Can you name any other living things that might fit into the same group? What do members of that group have in common?

Curriculum statement is achieved if the child:

Can explain why a specific animal or plant, is classified as being part of one group and not another. Explain, for example, similarities (common characteristics) and differences between an insect and a crustacean. Can make reference to wider subject knowledge in explaining classification. For example: plants make their own food by photosynthesis.

Teacher guidance

Statement		Explanation
A fish is not an animal.	False	A fish is a type of vertebrate animal.
A fungus is a plant often found in woods.	False	A fungus is not a plant because it cannot make its own food through photosynthesis.
A spider is an insect.	False	A spider is an arachnid – a spider has eight legs but an insect has six legs.
Algae are plants that grow in some ponds.	True	They make their own food by photosynthesis, so they are plants.
Ferns are plants that don't have flowers and don't produce seeds.	True	They are plants but they don't produce seeds. Instead they produce spores.
All insects have fixed wings.	False	Butterflies and moths have fixed wings, but others (such as ladybirds, flies and bees) have wings that fold into their bodies.
Mammals, such as lions, hedgehogs, squirrels, sheep and otters, eat a variety of different foods.	True	Mammals can be carnivores (lion, otter), herbivores (sheep, squirrel) or omnivores (hedgehog).
Mammals feed their young milk from glands on their bodies.	True	They give birth to live young that are fed on milk produced by the female.

SNAPSHOT ASSESSMENT: CLASSIFICATION: TRUE OR FALSE

Year group: 6 | Module: Our Changing World | Module 8: The Nature Library. Whole module



A fish is not an animal

A fungus is a plant often found in woods.

A spider is an insect.

Algae are plants that grow in some ponds.

Ferns are plants that don't have flowers and don't produce seeds

All insects have fixed wings.

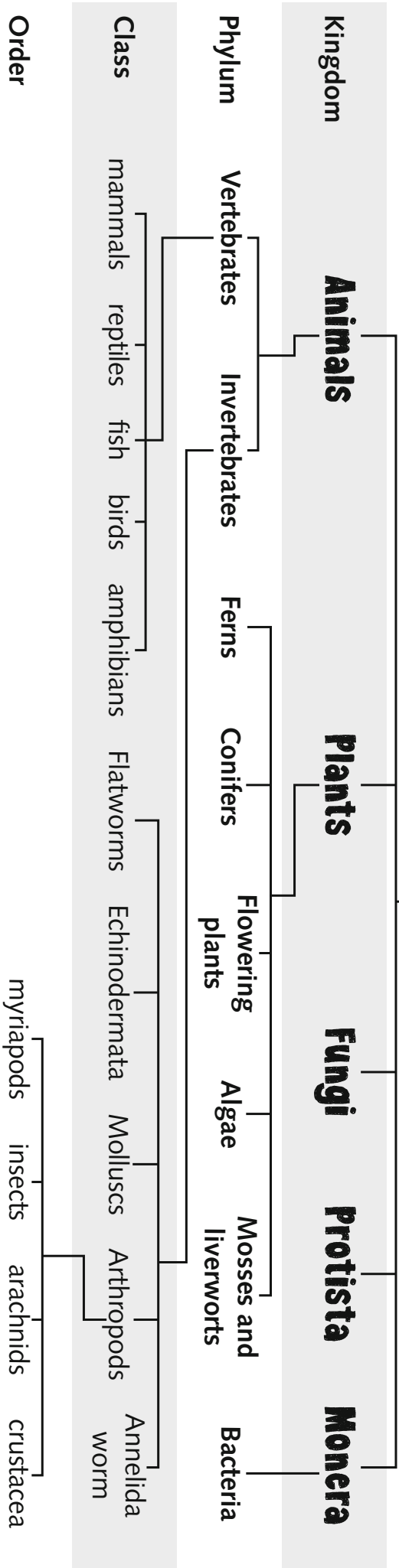
Mammals, such as lions, hedgehogs, squirrels, sheep and otters, eat a variety of different foods.

Mammals feed their young milk from glands on their bodies.

SNAPSHOT ASSESSMENT: CLASSIFICATION: TRUE OR FALSE

Year group: 6 | Module: Our Changing World | Module 8: The Nature Library: Whole module

Living things



Kingdom	Animals	Plants	Fungi	Protista	Monera
Phylum	Vertebrates	Invertebrates			
Class	mammals	reptiles	fish	birds	amphibians
Order					
Family					
Genus					
Species					

SNAPSHOT ASSESSMENT: CIRCULATION SYSTEM

Year group: 6 | Module 2: Body Pump. Lessons 1, 2, 3, 4, 5, 7

Curriculum statement:

Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.

Activity instructions

This activity should be carried out with individual children. Present the child with the blank graphic organiser. If necessary, remind them how to use it and tell them that you are going to talk to them about the circulatory system.

Ask the child to write as many parts of the circulatory system as they can in the first column.

You should expect at least heart, blood vessels and blood.

Other correct responses: veins, arteries and capillaries as types of blood vessels, plus plasma, platelets, red and white blood cells as parts of blood. (See exemplar graphic organiser and statement guidance.)

The children are to write only in the first column, but the second and third columns indicate answers that may be given in conversation with an adult. These columns may be filled in with the children's responses by the adult.

Questions to check understanding

What are the main parts of the circulatory system? What does each part do? What would happen without the blood? The heart? The blood vessels?

Curriculum statement is achieved if the child:

Can name and identify the heart, blood vessels and blood as main parts of the circulatory system. Can describe the functions of each part, giving explanations as to what would happen without them. (It is essential that the children recognise that the body could not function if any part of the circulatory system were missing and that it is vital for human survival.)

Exemplar graphic organiser – bold indicates essential responses for mastery, italic indicates additional responses that children might give.

Part of the system	What is the function of this part of the system?	What would happen to the system if this part was missing?
Heart	To act as a strong muscle and pump blood around the body	Blood would not circulate around the body
Blood vessels	To carry the blood around the body	Blood would not be able to travel to all parts of the body
Veins	Carry blood back to the heart	Blood would not return to the heart
Arteries	Carry blood away from the heart	Blood would remain in the heart
Capillaries	Tiny blood vessels that carry blood in the tissues of the body. They take oxygen to the cells and carbon dioxide away	Blood would not be able to travel within the tissues of the body
Blood	A liquid that transports nutrients and oxygen to every part of the body	The body would not receive nutrients or oxygen
Plasma	To carry the platelets, red and white blood cells	The blood would be too thick to travel through the blood vessels
Platelets	To help clotting when wounded	A wound would never stop bleeding
Red blood cells	Transport oxygen from the lungs to the body's living tissues and carry carbon dioxide away	The living tissues in the body would not receive the oxygen they need to function, nor would they be able to dispose of the carbon dioxide they produce
White blood cells	Protect and defend the body against disease	The body would be unable to defend itself against disease and infection and so would become ill quickly and unable to recover

SNAPSHOT ASSESSMENT: CIRCULATION SYSTEM

Year group: 6 | Module 2: Body Pump. Lessons 1, 2, 3, 4, 5, 7

Part of the system	What is the function of this part of the system?	What would happen to the system if this part was missing?

SNAPSHOT ASSESSMENT: WHY WATER?

Year group: 6 | Module 2: Body Pump. Lessons 6, 7

Curriculum statement:

Describe the ways in which nutrients and water are transported within animals, including humans.

Activity instructions

This activity is suitable for individual or small groups of children working with an adult. Show the image below as a prompt for discussion and tell the child that you are going to discuss how humans and other animals use water and nutrients.

Ask: *Why do humans need water?* Expect reference to temperature control, flushing waste and lubrication, or any of the reasons included on the mastery guidance.

Ask: *How is water transported in the body of animals including humans?* Expect reference to the circulatory system and an understanding that water is the main constituent of blood (83%).

If children have not yet referred to animals other than humans, ask: *Can you describe how the transport of water is different in another animal?* Expect responses to vary depending on their research during lesson 6. Answers may include reference to salt water animal or a desert animal.

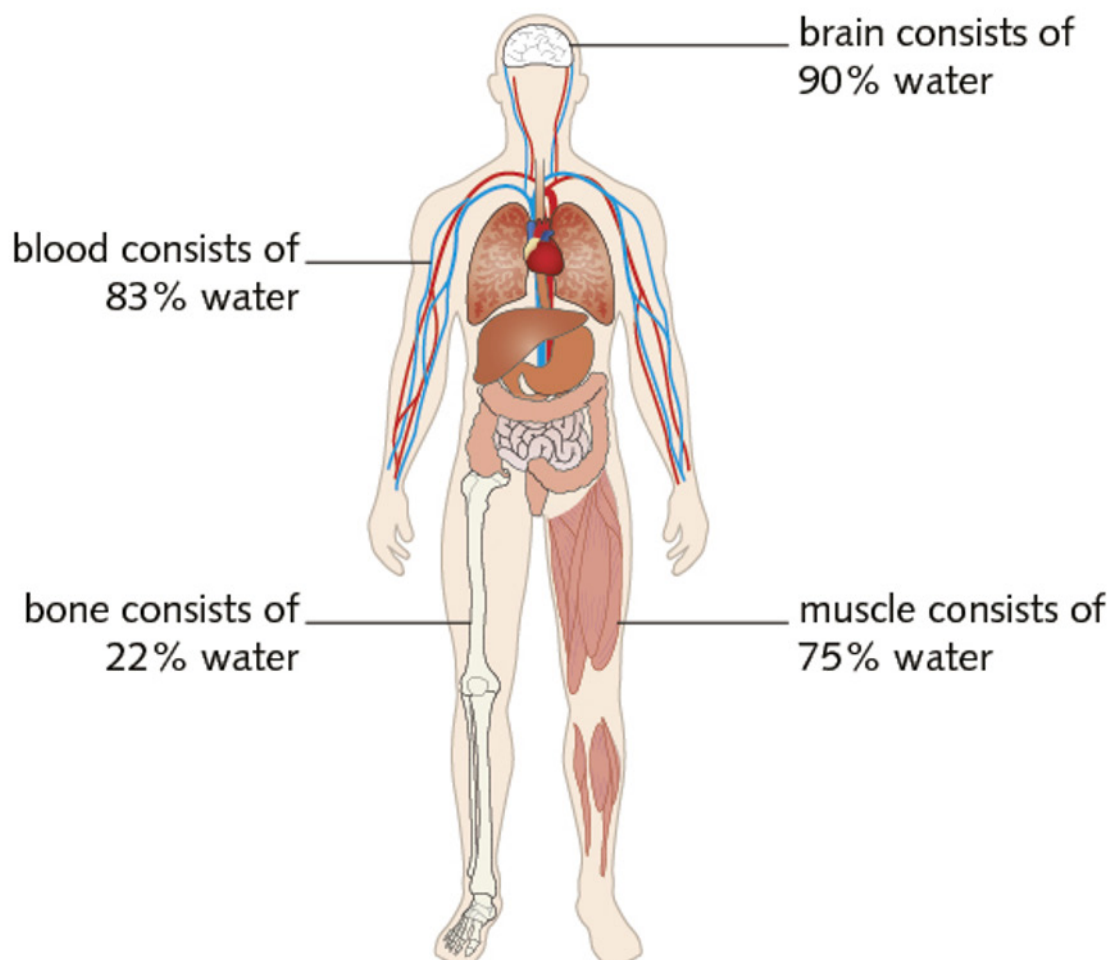
Questions to check understanding

Why do animals need water? How does it move around the body? How does the blood help with transporting water? What would happen if we didn't drink enough water?

Curriculum statement is achieved if the child:

Can describe at least two ways in which water is transported within animals, including at least one way within humans. Can refer to reasons for needing water and the circulatory system to support their description. Can recognise and describe at least three reasons why animals including humans need water. These should include:

- replace fluids lost through sweat, exercise, urination and breathing
- regulate temperature
- lubricate joints
- protect organs and tissues
- help kidneys and liver flush out waste products
- help to prevent constipation
- help to dissolve minerals and nutrients, making them accessible to the body
- carry oxygen and nutrients to cells.



SNAPSHOT ASSESSMENT: IMPACT OF DIET CHOICES

Year group: 6 | Module 3: Body Health. After Lesson 4

Curriculum statement:

Recognise the impact of diet, exercise, drugs and lifestyle on the way our bodies function.

Activity instructions

This activity is suitable for individual or small groups of children working with an adult. Give the child the body outline and tell them you are going to talk about how diet affects the human body.

Ask: *What different types of foods do we need to stay healthy?* Responses should include at least three of the following: proteins, carbohydrates, fats, vitamins and minerals.

Ask if it matters how much of each food type we eat, and ask the child to explain their answer.

Answers should go beyond the five food types from Year 3 (for example, dairy, bread and pasta, meat and fish) and should include: reference to the daily balance of foods from each group that help maintain a healthy diet; possible reference to the eatwell plate; the health risks of an unhealthy diet.

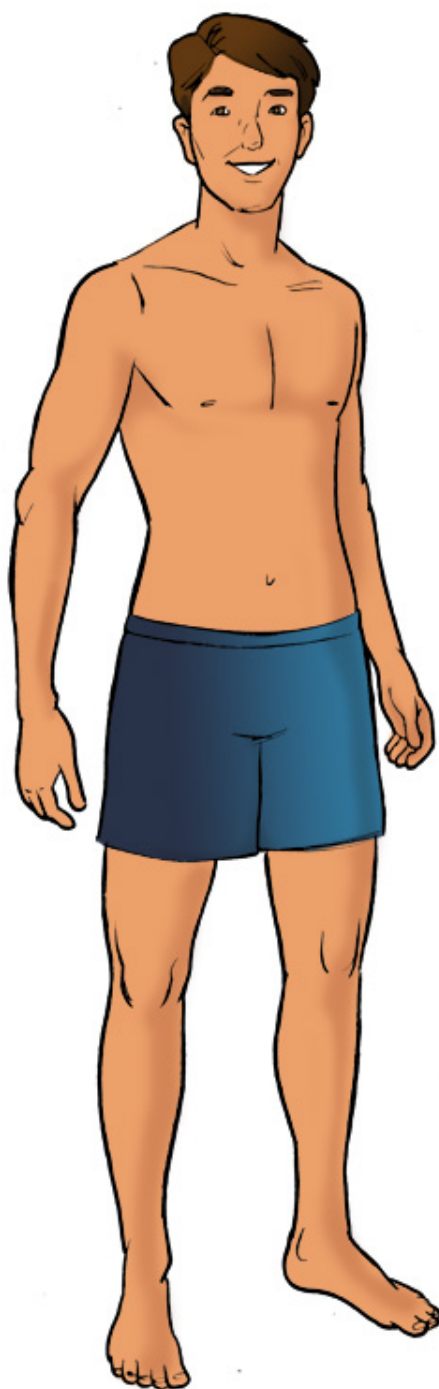
Ask the children to use the body outline to help them to explain how some foods are good for particular parts of the body. Encourage them to add annotations.

Questions to check understanding

What do you understand by 'balanced diet'? What can happen to the human body when a diet is not balanced? Can you give three examples?

Curriculum statement is achieved if the child:

Can use scientific facts to support what they say about the effects of diet on the human body. (These include reference to food groups and how they keep us healthy and what can happen if there are deficiencies in the diet.)



SNAPSHOT ASSESSMENT: IMPACT OF EXERCISE CHOICES

Year group: 6 | Module 3: Body Health. After Lesson 6

Curriculum statement:

Recognise the impact of diet, exercise, drugs and lifestyle on the way our bodies function.

Activity instructions

This activity is suitable for individual or small groups of children working with an adult. Give the child the body outline and tell them you are going to talk about how exercise affects the human body.

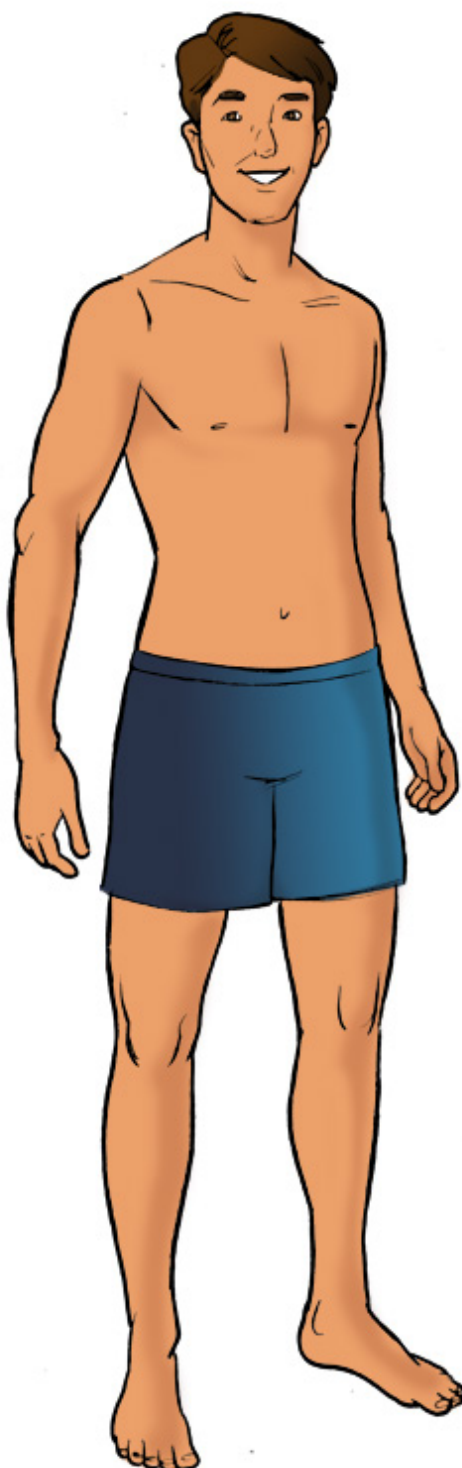
Ask them to give three ways in which a person's choice of exercise affects their body. Responses should use scientific language and refer to: different types of exercise (aerobic to strengthen the heart and circulatory system; strength and flexibility training to help prevent injury); benefits including general health and well being, weight management and disease prevention. Ask the children to use the body outline to help them to explain how different types of exercise affect different parts of the body.

Questions to check understanding

What types of exercise can you think of? How does [type of exercise] affect the body? Why should we take part in regular exercise? What can happen if we don't?

Curriculum statement is achieved if the child:

Can use scientific facts to support their explanation of why regular exercise is good for the human body. Can identify at least three risks to health from lack of exercise. Can describe appropriate activities and say how the choices we make can affect health.



SNAPSHOT ASSESSMENT: IMPACT OF DRUGS

Year group: 6 | Module 3: Body Health. After Lesson 8

Curriculum statement:

Recognise the impact of diet, exercise, drugs and lifestyle on the way our bodies function.

Activity instructions

This activity should be carried out with individual children.

Tell the child you are going to talk about how drugs affect the human body.

Place the body outline and the chosen flash card on the table, choosing which drug/s to focus on each time:

Nicotine

Ask: *Which parts of the body can nicotine / tobacco affect?*

Responses should include lungs and heart. Ask how the drug might affect each. Ask if they can think of any other parts of the body that the drug can affect, and how (for example teeth, skin). If they don't mention addiction, ask if nicotine can affect behaviour.

Alcohol

Ask: *Which parts of the body can alcohol affect?*

Ask: *How can alcohol affect the body soon after using it?*

Responses should include at least three from the following: relaxation, headache, depression, loss of self control, inability to speak clearly, feeling sick, making decisions that are dangerous or risky and losing balance.

Ask: *How can using alcohol for a long time affect the body?*

Responses should include at least three from the following: brain damage, liver damage, weight gain (which can lead to diabetes), cancer of the mouth and throat, memory loss and possible stroke.

Caffeine

Ask: *Which parts of the body can caffeine affect? How can caffeine affect the body soon after using it?*

Responses should include at least three from the following: heart beating faster, quicker breathing, nerves stimulated (feeling more 'awake') raised blood pressure.

Ask: *How can using caffeine for a long time affect the body?*

Responses should include at least three from: more fatty acids in the blood, difficulty in sleeping, headaches, nervousness, agitation, shaky hands, palpitations.

Solvents

Ask: *Which parts of the body can solvents affect? How can solvents affect the body soon after using them?*

Responses should include at least three of the following: depression, giggling, dreaminess, dizziness, wooziness, hallucinations, nausea, vomiting.

Ask: *How can using solvents for a long time affect the body?*

Responses should include at least three from the following: possible death, loss of appetite, headaches, mood swings, 'chemical' smell on breath, spots around mouth and eyes, runny nose, damage to brain, liver and kidneys.

Questions to check understanding

What makes people choose to use drugs that can harm them?

Curriculum statement is achieved if the child:

Can identify three short-term and three long-term effects of each drug included in the assessment. Can explain why people choose to use drugs that might harm them.



nicotine

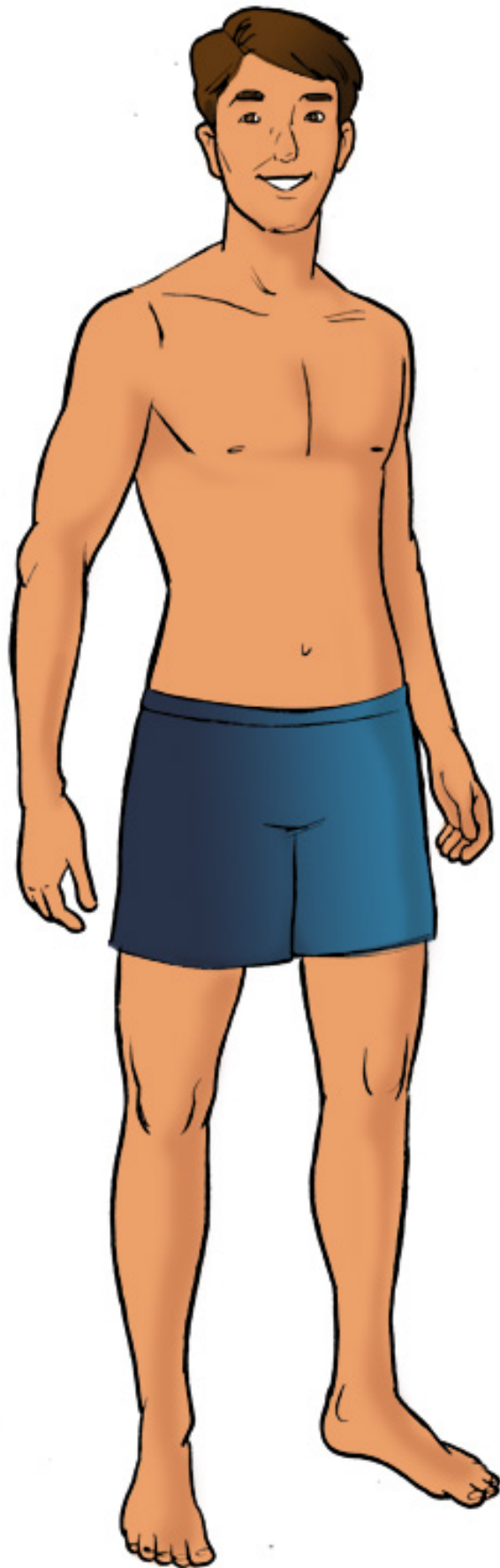
alcohol

caffeine

solvents

SNAPSHOT ASSESSMENT: IMPACT OF DRUGS

Year group: 6 | Module 3: Body Health. After Lesson 8



SNAPSHOT ASSESSMENT: LOOKING FOR CLUES

Year group: 6 | Module 4: Everything Changes. Whole module

Curriculum statement:

Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.

Activity instructions

Ideal for use with a group of up to six children.

Present children with the images of fossils and / or some real fossils. Ask them to talk with their partners about how a fossil is made.

Show children the cartoon and ask them to read out the statements. Ask them to consider what is being said by each child, and to decide whether they agree, disagree or are not sure. Tell them to justify their judgements using what they have learned about fossils over recent lessons.

Questions to check understanding

Which ideas do you agree with? Why? Which ones do you disagree with? Why? Are there any you're not sure about? Why might Jack think that fossils are only found on the beach? Is Charlie right that only animals (and parts of animals) are found as fossils? How were fossils made?

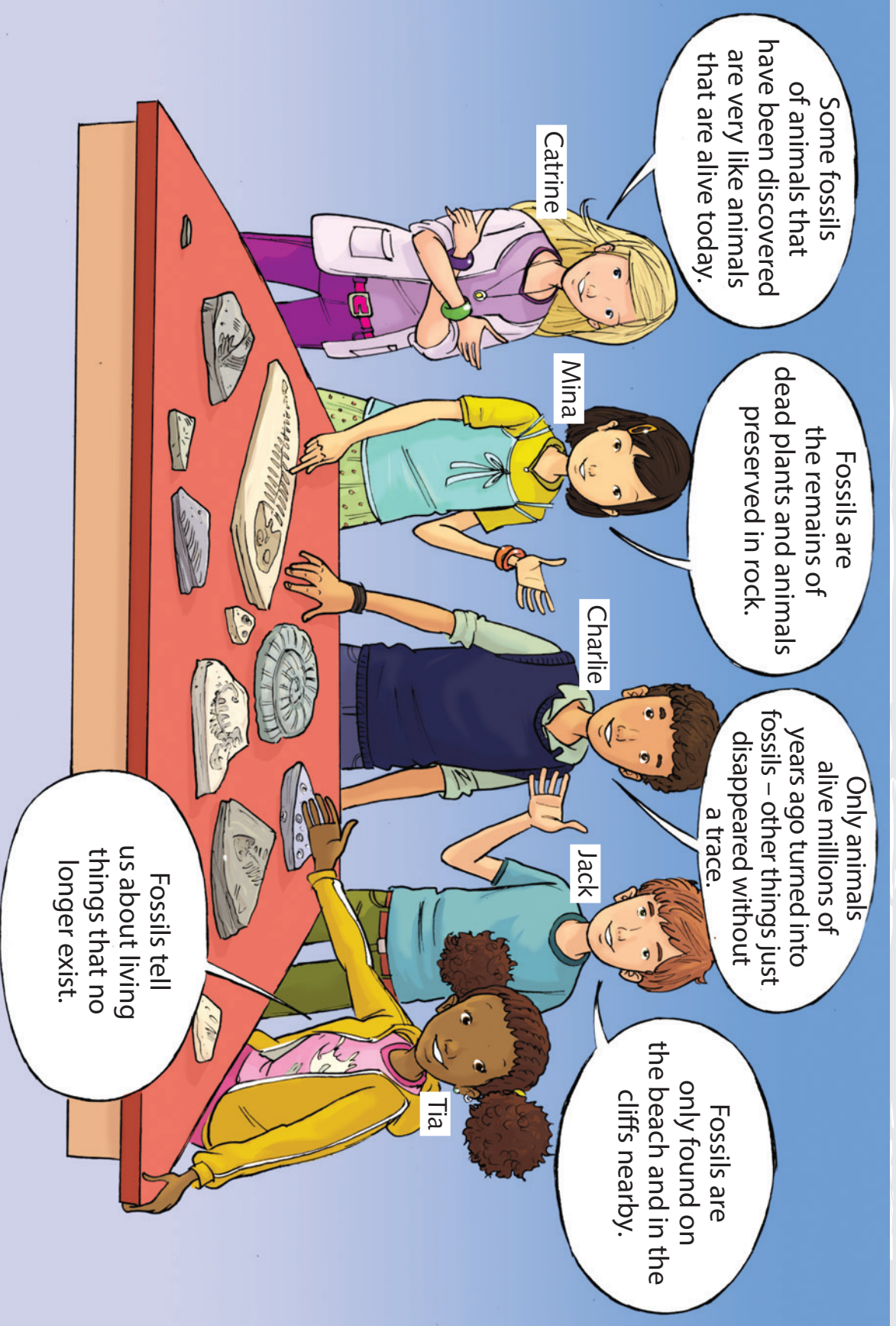
Curriculum statement is achieved if the child:

Can identify that natural materials, including human and animal footprints, plant and faecal matter, might be found fossilised. Can describe some evidence from fossils about things that were alive millions of years ago. Can explain that some fossils provide evidence about early ancestors of modern animals and plants. Can recognise that some fossilised remains are of animals that became extinct.



SNAPSHOT ASSESSMENT: LOOKING FOR CLUES

Year group: 6 | Module 4: Everything Changes. Whole module



SNAPSHOT ASSESSMENT: CIRCUIT DIAGRAMS

Year group: 6 | Module 5: Danger! Low voltage. Lessons 1, 2, 3, EL1, EL2, EL3, EL4

Curriculum statement:

Use recognised symbols when representing a simple circuit in a diagram.

Activity instructions

The tasks on the resource sheet should be completed by children, independently or in conversation with an adult.




Questions to check understanding

Why is it useful to have standard symbols for drawing circuits?

Curriculum statement is achieved if the child:

Can correctly identify and draw standard symbols for electrical components. Can draw the series circuit described in question 2, using standard symbols and including a cell or battery.

1. Complete the table, drawing the symbols as clearly as possible.

Symbol	Name
	
	bulb
	
	closed switch
	open switch
	motor
	cell
	

SNAPSHOT ASSESSMENT: CIRCUIT DIAGRAMS

Year group: 6 | Module 5: Danger! Low voltage. Lessons 1, 2, 3, EL1, EL2, EL3, EL4

2. Draw below a simple series circuit that has a motor controlled by a switch. The switch should be closed.

SNAPSHOT ASSESSMENT: RESISTANCE

Year group: 6 | Module 5: Danger! Low Voltage. Lessons 3, 4, E1, E2

Curriculum statement:

Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.

Activity instructions

The grids should be completed by children independently or in conversation with an adult.

Tell children to look carefully at Circuit A. Ask: *What do the symbols mean? Will the bulbs light?*

Show the children Grid 1. Ask: *What do the headings for each row mean? What is voltage?* (The push from the cell that causes electricity to flow around the circuit).

What flows in a current? (Electrons.) *What is resistance?* (The measure of how much the components oppose the current.) *How can a bulb function differently?* (It can become brighter or dimmer.)

The boxes have been completed for Circuit A.

Ask the children to look at Circuit B. How is it different from Circuit A?

Ask children to circle the correct word in each row for Circuit B.

Grid 2. Repeat the activity comparing Circuit C with Circuit D and completing grid 2.

Questions to check understanding

What is resisting the flow of electricity? Does adding bulbs increase or decrease resistance? Why does the bulb's brightness change? In the circuits with more than one bulb, do all the bulbs look the same (equally bright or dim) or different?

Curriculum statement is achieved if the child:

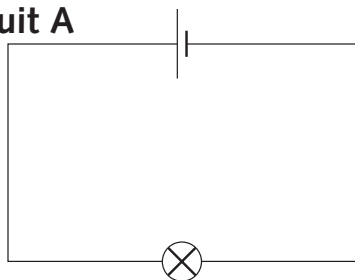
Can explain that resistance describes how hard it is for a current to flow through a circuit.

Completes both tables correctly. Can explain that increasing the number of bulbs in a circuit increases the resistance, reduces the flow of the current and makes the bulbs dimmer. Can explain that decreasing the number of bulbs in a circuit reduces the resistance, increases the flow of the current and makes the bulbs brighter.

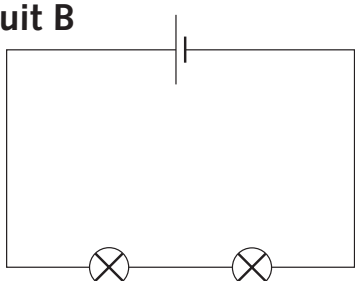
Answer grids:

Grid 1:

Circuit A

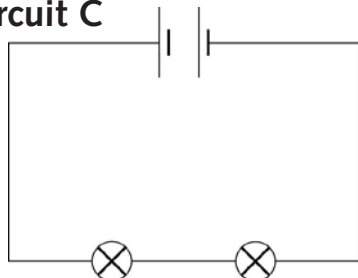


Circuit B

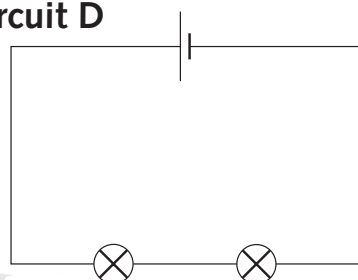


	Circuit A: one cell and one bulb	compared to	Circuit B: one cell and two bulbs
Voltage	1.5V	→	Same / more / less
Resistance	Low	→	Same / more / less
Current	Large	→	Same / more / less
Brightness of bulb	Bright	→	Same / brighter / dimmer

Circuit C



Circuit D



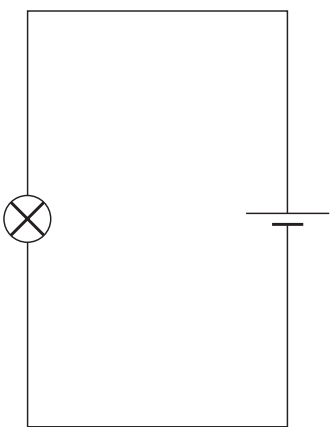
Grid 2:

	Circuit C: two cells and two bulbs	compared to	Circuit D: two cells and one bulb
Voltage	3V	→	Same / more / less
Resistance	Low	→	Same / more / less
Current	Large	→	Same / more / less
Brightness of bulb	Bright	→	Same / brighter / dimmer

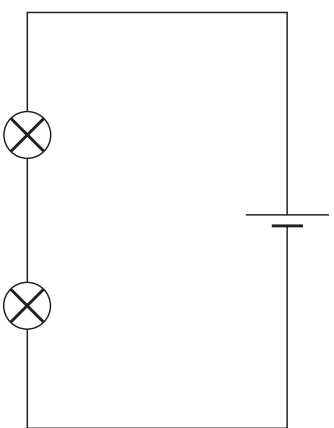
SNAPSHOT ASSESSMENT: RESISTANCE

Year group: 6 | Module 5: Danger! Low Voltage. Lessons 3, 4, E1, E2

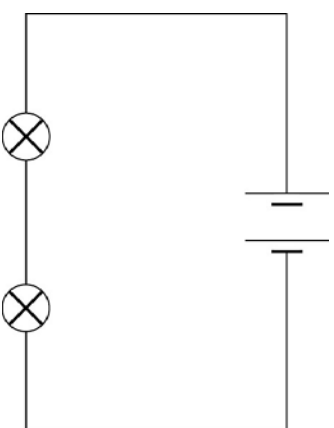
Circuit A



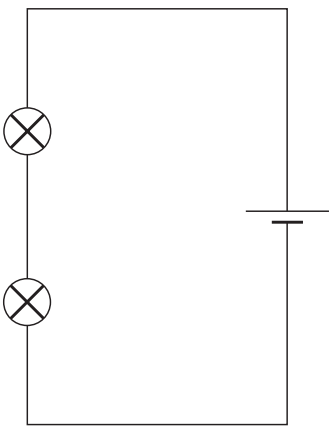
Circuit B



Circuit C



Circuit D



Grid 1:

	Circuit A: one cell and one bulb	compared to	Circuit B: one cell and two bulbs
Voltage	1.5V	→	Same / more / less
Resistance	Low	→	Same / more / less
Current	Large	→	Same / more / less
Brightness of bulb	Bright	→	Same / brighter / dimmer

Grid 2:

	Circuit C: two cells and two bulbs	compared to	Circuit D: one cell and two bulbs
Voltage	3V	→	Same / more / less
Resistance	Low	→	Same / more / less
Current	Large	→	Same / more / less
Brightness of bulb	Bright	→	Same / brighter / dimmer

SNAPSHOT ASSESSMENT: VOLTAGE

Year group: 6 | Module 5: Danger! Low Voltage. Lessons 3, 4, E1, E2

Curriculum statement:

Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.

Activity instructions

The grids should be completed by children independently or in conversation with an adult. Answer grids are also provided for teacher guidance.

Tell children to look carefully at Circuit A. Ask: *What do the symbols mean? Will the bulbs light?*

Show the children Grid 1. Ask: *What do the headings for each row mean?*

What is voltage? (The push from the cell that causes electricity to flow

around the circuit.) *What flows in an electric current?* (Electrons.) *How can*

a bulb function differently? (It can become brighter or dimmer.) Ask the

children to look at Circuit B. How is it different from Circuit A?

Ask children to circle the correct word in each row for Circuit B.

Grid 2. Repeat the activity comparing Circuit C with Circuit D and completing grid 2 by circling the correct word or voltage for circuit D.

Questions to check understanding

What is the voltage measuring? How does voltage affect the flow of electricity? What is resisting the flow of electricity? (the bulbs) Why does the bulb brightness change? Is one bulb brighter or dimmer than the other in any of the circuits, or are the two bulbs equally bright or dim in each circuit?

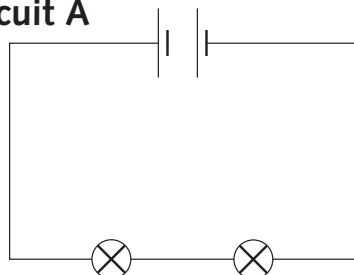
Curriculum statement is achieved if the child:

Can explain that voltage is the push that causes electricity to flow around a circuit. Completes both tables correctly. Can explain that increasing the number of cells in a circuit increases the voltage, increases the current of electricity and makes the bulbs brighter. Can explain that decreasing the number of cells in a circuit reduces the voltage, reduces the flow of electricity and dims the bulbs.

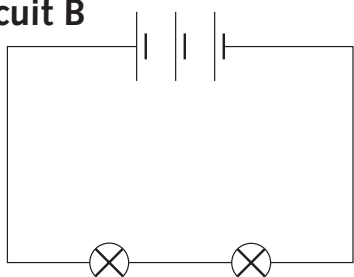
Answer grids:

Grid 1:

Circuit A

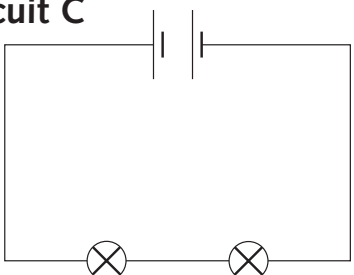


Circuit B

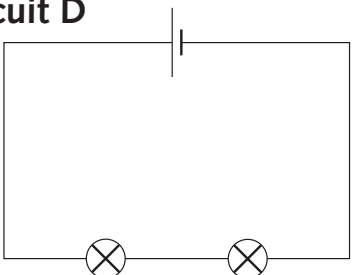


	Circuit A:	compared with	Circuit B:
Voltage	3V	→	3V / (4.5V) / 6V
Number of bulbs	Two bulbs	→	(Same) / more / less
Current	Large	→	Same / (more) / less
Brightness of bulb	Bright	→	Same / (brighter) / dimmer

Circuit C



Circuit D



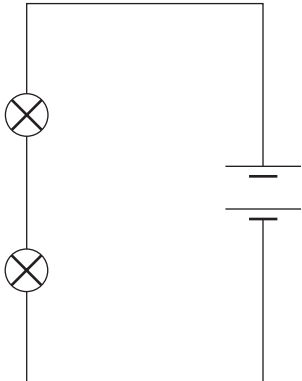
Grid 2:

	Circuit C:	compared with	Circuit D:
Voltage	3V	→	(1.5V) / 3V / 4.5V
Resistance	Two bulbs	→	(Same) / more / less
Current	Large	→	Same / more / (less)
Brightness of bulb	Bright	→	Same / brighter / (dimmer)

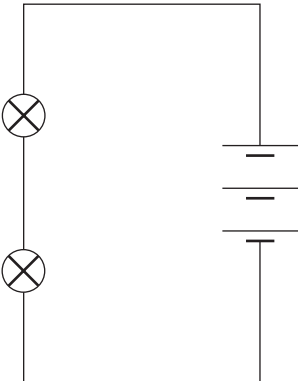
SNAPSHOT ASSESSMENT: VOLTAGE

Year group: 6 | Module 5: Danger! Low Voltage. Lessons 3, 4, E1, E2

Circuit A



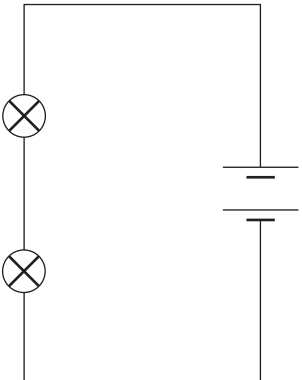
Circuit B



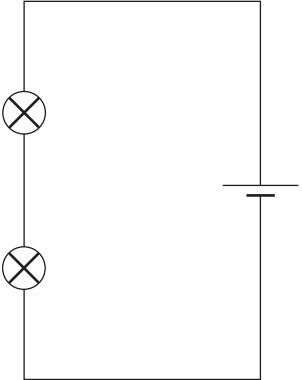
Grid 1:

	Circuit A:	compared with	Circuit B:
Voltage	3V	→	3V / 4.5V / 6V
Number of bulbs	Two bulbs	→	Same / more / less
Current	Large	→	Same / more / less
Brightness of bulb	Bright	→	Same / brighter / dimmer

Circuit C



Circuit D



Grid 2:

	Circuit C:	compared with	Circuit D:
Voltage	3V	→	1.5V / 3V / 4.5V
Number of bulbs	Two bulbs	→	Same / more / less
Current	Large	→	Same / more / less
Brightness of bulb	Bright	→	Same / brighter / dimmer

SNAPSHOT ASSESSMENT: SEEING OBJECTS

Year group: 6 | Module 6: Light Up Your World. Lessons 1, 4, 9

Curriculum statements:

Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. Use the idea that light travels to explain how objects are seen because they give out or reflect light into the eye.

Activity instructions

This activity is for individual children. Provide pencils and rulers. Draw the child's attention to the man, the wallet and the street light. Establish that it is night time and that the street light is the only source of light.

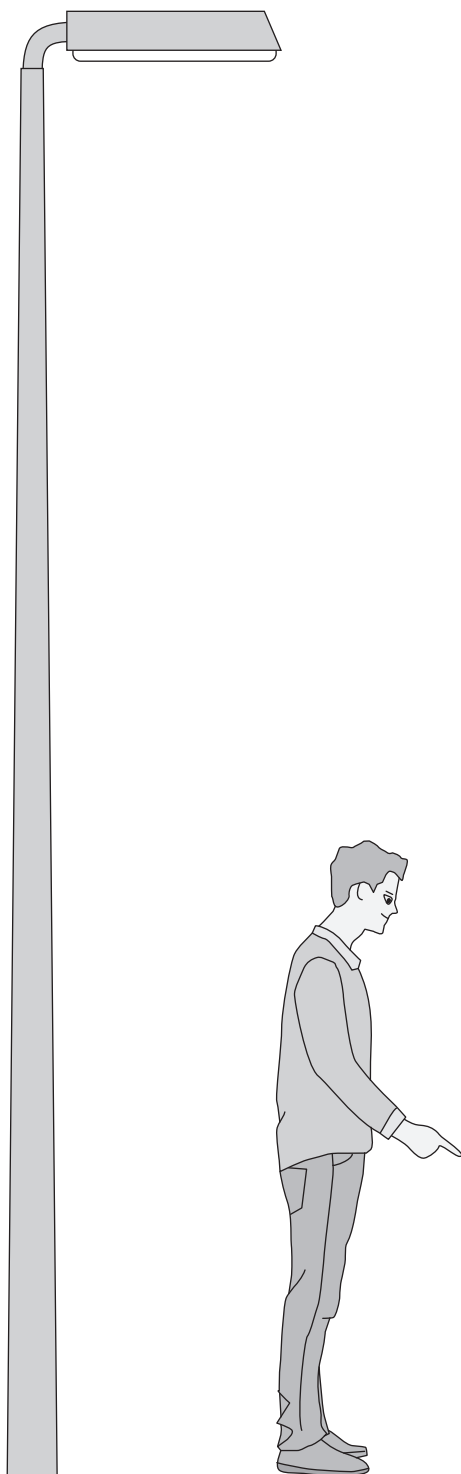
Ask them to add labels and arrows to the image to explain how the man can see the wallet.

Questions to check understanding

What is the light source? In which direction does the light travel? What happens to the light when it hits the wallet? Is there anything you need to label on the man? What does the man have to do to see the street lamp?

Mastery is achieved if the child:

Labels the eyes. Can show the correct path of the light (source → object → eye) with straight lines touching the source, object and eye with arrow heads in the right directions. Uses the word 'reflect' to describe what the light does when it hits the wallet.



SNAPSHOT ASSESSMENT: HOW DOES LIGHT TRAVEL?

Year group: 6 | Module 6: Light Up Your World. Lessons 3, 4, 5, 7, 8, 9, EL1, EL2

Curriculum statement:

Recognise that light appears to travel in straight lines.

Activity instructions

This activity should be done by individual children. Show each of the children the two images, and explain that the girl is in a dimly lit room. Draw their attention to the torch and the tube. Ask the child to tell you in which situation the girl will be able to see the torch light on the wall in front of her. Can they give a reason for their answer?

Questions to check understanding

Where is the light source? Which direction is the light travelling from the light source? What could you put in the bent tube to enable the girl to see the torch light on the floor?

Curriculum statement is achieved if the child:

Can indicate the straight tube, and explain that light travels in a straight line from the torch bulb, which is why she can't see the light that enters the bent tube.



SNAPSHOT ASSESSMENT: MAKING SHARPLY DEFINED SHADOWS

Year group: 6 | Module 6: Light Up Your World. Lessons 5, 6, 9, EL1, EL2

Curriculum statement:

Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

Activity instructions

This activity is for individual children.

Show the child the image. Tell the child that the object is made of an opaque material. Ask them to draw the light rays and what will be seen on the screen.

Questions to check understanding

Which way does the light travel? What happens when the light rays hit the object? What will be formed on the screen? What shape will the shadow be? Can you explain why it is that shape?

Mastery is achieved if the child:

Can draw the light ray arrow lines, stopping them where they meet the object and continuing them round the side, over the top and under the bottom. Can use a ruler to draw straight lines. Can draw a black or grey circle T shape the same shape and way up as the image.

SNAPSHOT ASSESSMENT: MAKING SHARPLY DEFINED SHADOWS

Year group: 6 | Module 6: Light Up Your World. Lessons 5, 6, 9, EL1, EL2



SNAP SCIENCE | YEAR 1 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Working Scientifically	<ul style="list-style-type: none"> Ask simple questions and recognise that they can be answered in different ways 				
	<ul style="list-style-type: none"> Observe closely, using simple equipment 				
	<ul style="list-style-type: none"> Perform simple tests 				
	<ul style="list-style-type: none"> Identify and classify 				
	<ul style="list-style-type: none"> Use observations and ideas to suggest answers to questions 				
	<ul style="list-style-type: none"> Gather and record data to help in answering questions 				
Our Changing World: Plants	<ul style="list-style-type: none"> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees 				
	<ul style="list-style-type: none"> Identify and describe the basic structure of a variety of common flowering plants, including trees 				
	<ul style="list-style-type: none"> Observe changes across the four seasons 				
Our Changing World: Animal antics	<ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals 				
Our Changing World: Sensing seasons	<ul style="list-style-type: none"> Observe changes across the four seasons 				
	<ul style="list-style-type: none"> Observe and describe weather associated with the seasons and how day length varies 				
Module 1: Plant detectives	<ul style="list-style-type: none"> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees 				
	<ul style="list-style-type: none"> Identify and describe the basic structure of a variety of common flowering plants, including trees 				
Module 2: Looking at animals	<ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals 				
	<ul style="list-style-type: none"> Identify and name a variety of common animals that are carnivores, herbivores and omnivores 				
	<ul style="list-style-type: none"> Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) 				
Module 3: Human body: Using our senses	<ul style="list-style-type: none"> Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense 				

SNAP SCIENCE | YEAR 1 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Module 4: Everyday material	<ul style="list-style-type: none">Distinguish between an object and the material from which it is made				
	<ul style="list-style-type: none">Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock				
	<ul style="list-style-type: none">Describe the simple physical properties of a variety of everyday materials				
	<ul style="list-style-type: none">Compare and group together a variety of everyday materials on the basis of their simple physical properties				
Overall mastery level					

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Working Scientifically

Pupil name	Ask simple questions and recognise that they can be answered in different ways	Observe closely, using simple equipment	Perform simple tests	Identify and classify	Use observations and ideas to suggest answers to questions	Gather and record data to help in answering questions

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Ask simple questions and recognise that they can be answered in different ways	Observe closely, using simple equipment	Perform simple tests	Identify and classify	Use observations and ideas to suggest answers to questions	Gather and record data to help in answering questions

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Our Changing World: Plants

Pupil name	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees	Identify and describe the basic structure of a variety of common flowering plants, including trees	Observe changes across the four seasons

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees	Identify and describe the basic structure of a variety of common flowering plants, including trees	Observe changes across the four seasons

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Our Changing World: Animal antics

Pupil name	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Our Changing World: Sensing seasons

Pupil name	Observe changes across the four seasons	Observe and describe weather associated with the seasons and how day length varies

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Observe changes across the four seasons	Observe and describe weather associated with the seasons and how day length varies

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 1: Plant detectives

Pupil name	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees	Identify and describe the basic structure of a variety of common flowering plants, including trees

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees	Identify and describe the basic structure of a variety of common flowering plants, including trees

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 2: Looking at animals

Pupil name	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals	Identify and name a variety of common animals that are carnivores, herbivores and omnivores	Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals	Identify and name a variety of common animals that are carnivores, herbivores and omnivores	Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 3: Human body: Using our senses

Pupil name	Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 4: Everyday material

Pupil name	Distinguish between an object and the material from which it is made	Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock	Describe the simple physical properties of a variety of everyday materials	Compare and group together a variety of everyday materials on the basis of their simple physical properties

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 1 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Distinguish between an object and the material from which it is made	Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock	Describe the simple physical properties of a variety of everyday materials	Compare and group together a variety of everyday materials on the basis of their simple physical properties

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Working Scientifically	<ul style="list-style-type: none"> Ask simple questions and recognise that they can be answered in different ways 				
	<ul style="list-style-type: none"> Observe closely, using simple equipment 				
	<ul style="list-style-type: none"> Perform simple tests 				
	<ul style="list-style-type: none"> Identify and classify 				
	<ul style="list-style-type: none"> Use observations and ideas to suggest answers to questions 				
	<ul style="list-style-type: none"> Gather and record data to help in answering questions 				
Our Changing World	<ul style="list-style-type: none"> Identify and name a variety of plants and animals in their habitats, including micro-habitats 				
	<ul style="list-style-type: none"> Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other 				
	<ul style="list-style-type: none"> Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food 				
	<ul style="list-style-type: none"> Notice that animals, including humans, have offspring which grow into adults 				
	<ul style="list-style-type: none"> Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy 				
	<ul style="list-style-type: none"> Observe and describe how seeds and bulbs grow into mature plants 				
Module 1: What is in your habitat?	<ul style="list-style-type: none"> Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other 				
	<ul style="list-style-type: none"> Explore and compare the differences between things that are living, dead, and things that have never been alive 				
	<ul style="list-style-type: none"> Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food 				
Module 2: The apprentice gardener	<ul style="list-style-type: none"> Observe and describe how seeds and bulbs grow into mature plants 				
	<ul style="list-style-type: none"> Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy 				

SNAP SCIENCE | YEAR 2 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Module 3: Shaping up	<ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses 				
	<ul style="list-style-type: none"> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching 				
Module 4: Materials: good choices	<ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses 				
	<ul style="list-style-type: none"> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching enrichment only 				
Module 5: Take care	<ul style="list-style-type: none"> Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygien 				
Module 6: Growing up	<ul style="list-style-type: none"> Notice that animals, including humans, have offspring which grow into adults 				
	<ul style="list-style-type: none"> Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) 				
Overall mastery level					

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Working Scientifically

Pupil name	Ask simple questions and recognise that they can be answered in different ways	Observe closely, using simple equipment	Perform simple tests	Identify and classify	Use observations and ideas to suggest answers to questions	Gather and record data to help in answering questions

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Ask simple questions and recognise that they can be answered in different ways	Observe closely, using simple equipment	Perform simple tests	Identify and classify	Use observations and ideas to suggest answers to questions	Gather and record data to help in answering questions

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

Class: _____ Date: _____

Class: _____ Date: _____

[illegible]

www.collins.co.uk © HarperCollinsPublishers Limited 2014

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

[illegible]

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify and name a variety of plants and animals in their habitats, including micro-habitats	Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other	Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food	Notice that animals, including humans, have offspring which grow into adults	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	Observe and describe how seeds and bulbs grow into mature plants

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 1: What is in your habitat?

Pupil name	Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other	Explore and compare the differences between things that are living, dead, and things that have never been alive	Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other	Explore and compare the differences between things that are living, dead, and things that have never been alive	Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 2: The apprentice gardener

Pupil name	Observe and describe how seeds and bulbs grow into mature plants	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Observe and describe how seeds and bulbs grow into mature plants	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 3: Shaping up

Pupil name	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 4: Materials: good choices

Pupil name	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching enrichment only

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching enrichment only

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 5: Take care

Pupil name	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 6: Growing up

Pupil name	Notice that animals, including humans, have offspring which grow into adults	Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 2 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Notice that animals, including humans, have offspring which grow into adults	Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 3 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Working Scientifically	<ul style="list-style-type: none"> Ask relevant questions and use different types of scientific enquiries to answer them 				
	<ul style="list-style-type: none"> Set up simple practical enquiries, comparative and fair tests 				
	<ul style="list-style-type: none"> Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers 				
	<ul style="list-style-type: none"> Gather, record, classify and present data in a variety of ways to help in answering questions 				
	<ul style="list-style-type: none"> Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables 				
	<ul style="list-style-type: none"> Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions 				
	<ul style="list-style-type: none"> Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions 				
	<ul style="list-style-type: none"> Identify differences, similarities or changes related to simple scientific ideas and processes 				
	<ul style="list-style-type: none"> Use straightforward scientific evidence to answer questions or to support their findings 				
Our Changing World	<ul style="list-style-type: none"> Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers 				
	<ul style="list-style-type: none"> Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant 				
	<ul style="list-style-type: none"> Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal 				
Module 1: How does your garden grow?	<ul style="list-style-type: none"> Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers 				
	<ul style="list-style-type: none"> Investigate the way in which water is transported within plants 				
	<ul style="list-style-type: none"> Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal 				
Module 2: Rock detectives	<ul style="list-style-type: none"> Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties 				
	<ul style="list-style-type: none"> Describe in simple terms how fossils are formed when things that have lived are trapped within rock 				
	<ul style="list-style-type: none"> Recognise that soils are made from rocks and organic matter 				

SNAP SCIENCE | YEAR 3 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Module 3: Can you see me?	<ul style="list-style-type: none"> Recognise that they need light in order to see things and that dark is the absence of light 				
	<ul style="list-style-type: none"> Notice that light is reflected from surfaces 				
	<ul style="list-style-type: none"> Recognise that light from the sun can be dangerous and that there are ways to protect their eyes 				
	<ul style="list-style-type: none"> Recognise that shadows are formed when the light from a light source is blocked by an opaque object 				
	<ul style="list-style-type: none"> Find patterns in the way that the size of shadows change 				
Module 4: The power of forces	<ul style="list-style-type: none"> Compare how things move on different surfaces 				
	<ul style="list-style-type: none"> Notice that some forces need contact between two objects, but magnetic forces can act at a distance 				
	<ul style="list-style-type: none"> Observe how magnets attract or repel each other and attract some materials and not others 				
	<ul style="list-style-type: none"> Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials 				
	<ul style="list-style-type: none"> Describe magnets as having two poles 				
	<ul style="list-style-type: none"> Predict whether two magnets will attract or repel each other, depending on which poles are facing 				
Module 5: Amazing bodies	<ul style="list-style-type: none"> Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat 				
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement 				
Overall mastery level					

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Our Changing World

Pupil name	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 1: How does your garden grow?

Pupil name	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	Investigate the way in which water is transported within plants	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	Investigate the way in which water is transported within plants	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 2: Rock detectives

Pupil name	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties	Describe in simple terms how fossils are formed when things that have lived are trapped within rock	Recognise that soils are made from rocks and organic matter

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties	Describe in simple terms how fossils are formed when things that have lived are trapped within rock	Recognise that soils are made from rocks and organic matter

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 3: Can you see me?

Pupil name	Recognise that they need light in order to see things and that dark is the absence of light	Notice that light is reflected from surfaces	Recognise that light from the sun can be dangerous and that there are ways to protect their eyes	Recognise that shadows are formed when the light from a light source is blocked by an opaque object	Find patterns in the way that the size of shadows change

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Recognise that they need light in order to see things and that dark is the absence of light	Notice that light is reflected from surfaces	Recognise that light from the sun can be dangerous and that there are ways to protect their eyes	Recognise that shadows are formed when the light from a light source is blocked by an opaque object	Find patterns in the way that the size of shadows change

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 4: The power of forces

[illegible]

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Compare how things move on different surfaces	Notice that some forces need contact between two objects, but magnetic forces can act at a distance	Observe how magnets attract or repel each other and attract some materials and not others	Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials	Describe magnets as having two poles	Predict whether two magnets will attract or repel each other, depending on which poles are facing

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 5: Amazing bodies

Pupil name	Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat	Identify that humans and some other animals have skeletons and muscles for support, protection and movement

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 3 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat	Identify that humans and some other animals have skeletons and muscles for support, protection and movement

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Working Scientifically	<ul style="list-style-type: none"> Ask relevant questions and use different types of scientific enquiries to answer them 				
	<ul style="list-style-type: none"> Set up simple practical enquiries, comparative and fair tests 				
	<ul style="list-style-type: none"> Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers 				
	<ul style="list-style-type: none"> Gather, record, classify and present data in a variety of ways to help in answering questions 				
	<ul style="list-style-type: none"> Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables 				
	<ul style="list-style-type: none"> Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions 				
	<ul style="list-style-type: none"> Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions 				
	<ul style="list-style-type: none"> Identify differences, similarities or changes related to simple scientific ideas and processes 				
	<ul style="list-style-type: none"> Use straightforward scientific evidence to answer questions or to support their findings 				
Our Changing World	<ul style="list-style-type: none"> Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment 				
Module 1: In a state	<ul style="list-style-type: none"> Compare and group materials together, according to whether they are solids, liquids or gases 				
	<ul style="list-style-type: none"> Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) 				
	<ul style="list-style-type: none"> Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature 				
Module 2: Good vibrations	<ul style="list-style-type: none"> Identify how sounds are made, associating some of them with something vibrating 				
	<ul style="list-style-type: none"> Recognise that vibrations from sounds travel through a medium to the ear 				
	<ul style="list-style-type: none"> Find patterns between the pitch of a sound and features of the object that produced it 				
	<ul style="list-style-type: none"> Find patterns between the volume of a sound and the strength of the vibrations that produced it 				
	<ul style="list-style-type: none"> Recognise that sounds get fainter as the distance from the sound source increases 				

SNAP SCIENCE | YEAR 4 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Module 3: Switched on	<ul style="list-style-type: none"> Identify common appliances that run on electricity 				
	<ul style="list-style-type: none"> Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers 				
	<ul style="list-style-type: none"> Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery 				
	<ul style="list-style-type: none"> Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit 				
	<ul style="list-style-type: none"> Recognise some common conductors and insulators, and associate metals with being good conductors 				
Module 4: Where does all that food go?	<ul style="list-style-type: none"> Describe the simple functions of the basic parts of the digestive system in humans 				
	<ul style="list-style-type: none"> Identify the different types of teeth in humans and their simple functions 				
	<ul style="list-style-type: none"> Construct and interpret a variety of food chains, identifying producers, predators and prey 				
Module 5: Human impact	<ul style="list-style-type: none"> Recognise that environments can change and that this can sometimes pose dangers to living things 				
Module 6: Who am I?	<ul style="list-style-type: none"> Recognise that living things can be grouped in a variety of ways 				
	<ul style="list-style-type: none"> Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment 				
Overall mastery level					

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Our Changing World

Pupil name	Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 1: In a state

Pupil name	Compare and group materials together, according to whether they are solids, liquids or gases	Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)	Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Compare and group materials together, according to whether they are solids, liquids or gases	Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)	Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 2: Good vibrations

Pupil name	Identify how sounds are made, associating some of them with something vibrating	Recognise that vibrations from sounds travel through a medium to the ear	Find patterns between the pitch of a sound and features of the object that produced it	Find patterns between the volume of a sound and the strength of the vibrations that produced it	Recognise that sounds get fainter as the distance from the sound source increases

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify how sounds are made, associating some of them with something vibrating	Recognise that vibrations from sounds travel through a medium to the ear	Find patterns between the pitch of a sound and features of the object that produced it	Find patterns between the volume of a sound and the strength of the vibrations that produced it	Recognise that sounds get fainter as the distance from the sound source increases

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 3: Switched on

Pupil name	Identify common appliances that run on electricity	Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers	Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery	Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit	Recognise some common conductors and insulators, and associate metals with being good conductors

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify common appliances that run on electricity	Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers	Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery	Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit	Recognise some common conductors and insulators, and associate metals with being good conductors

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 4: Where does all that food go?

Pupil name	Describe the simple functions of the basic parts of the digestive system in humans	Identify the different types of teeth in humans and their simple functions	Construct and interpret a variety of food chains, identifying producers, predators and prey

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Describe the simple functions of the basic parts of the digestive system in humans	Identify the different types of teeth in humans and their simple functions	Construct and interpret a variety of food chains, identifying producers, predators and prey

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 5: Human impact

Pupil name	Recognise that environments can change and that this can sometimes pose dangers to living things

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Recognise that environments can change and that this can sometimes pose dangers to living things

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 6: Who am I?

[illegible]

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 4 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Recognise that living things can be grouped in a variety of ways	Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Working Scientifically	<ul style="list-style-type: none"> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary 				
	<ul style="list-style-type: none"> Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate 				
	<ul style="list-style-type: none"> Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs 				
	<ul style="list-style-type: none"> Use test results to make predictions to set up further comparative and fair tests 				
	<ul style="list-style-type: none"> Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations 				
	<ul style="list-style-type: none"> Identify scientific evidence that has been used to support or refute ideas or arguments 				
Our Changing World	<ul style="list-style-type: none"> Describe the life process of reproduction in some plants and animals 				
Module 1: Circle of life	<ul style="list-style-type: none"> Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird 				
Module 2: Reproduction in plants and animals	<ul style="list-style-type: none"> Describe the life process of reproduction in some plants and animals 				
	<ul style="list-style-type: none"> Describe the changes as humans develop to old age 				
Module 3: Get sorted	<ul style="list-style-type: none"> Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets 				
Module 4: Everyday materials	<ul style="list-style-type: none"> Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic 				
Module 5: Marvellous mixtures	<ul style="list-style-type: none"> Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution 				
	<ul style="list-style-type: none"> Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating 				

SNAP SCIENCE | YEAR 5 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Module 6: All change	<ul style="list-style-type: none"> Demonstrate that dissolving, mixing and changes of state are reversible changes 				
	<ul style="list-style-type: none"> Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda 				
Module 7: Feel the Force	<ul style="list-style-type: none"> Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object 				
	<ul style="list-style-type: none"> Identify the effects of air resistance, water resistance and friction, that act between moving surfaces 				
	<ul style="list-style-type: none"> Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect 				
Module 8: The earth and beyond	<ul style="list-style-type: none"> Describe the movement of the Earth, and other planets, relative to the Sun in the solar system 				
	<ul style="list-style-type: none"> Describe the movement of the Moon relative to the Earth 				
	<ul style="list-style-type: none"> Describe the Sun, Earth and Moon as approximately spherical bodies 				
	<ul style="list-style-type: none"> Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky 				
Overall mastery level					

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Working Scientifically

[illegible]

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Our Changing World

Pupil name	Describe the life process of reproduction in some plants and animals

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Describe the life process of reproduction in some plants and animals

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 1: Circle of life

Pupil name	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 2: Reproduction in plants and animals

Pupil name	Describe the life process of reproduction in some plants and animals	Describe the changes as humans develop to old age

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Describe the life process of reproduction in some plants and animals	Describe the changes as humans develop to old age

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 3: Get sorted

Pupil name	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 4: Everyday materials

Pupil name	Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 5: Marvellous mixtures

Pupil name	Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution	Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution	Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 6: All change

Pupil name	Demonstrate that dissolving, mixing and changes of state are reversible changes	Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Demonstrate that dissolving, mixing and changes of state are reversible changes	Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 7: Feel the force

Pupil name	Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object	Identify the effects of air resistance, water resistance and friction, that act between moving surfaces	Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object	Identify the effects of air resistance, water resistance and friction, that act between moving surfaces	Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 8: The earth and beyond

Pupil name	Describe the movement of the Earth, and other planets, relative to the Sun in the solar system	Describe the movement of the Moon relative to the Earth	Describe the Sun, Earth and Moon as approximately spherical bodies	Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 5 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Describe the movement of the Earth, and other planets, relative to the Sun in the solar system	Describe the movement of the Moon relative to the Earth	Describe the Sun, Earth and Moon as approximately spherical bodies	Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Working Scientifically	<ul style="list-style-type: none"> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary 				
	<ul style="list-style-type: none"> Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate 				
	<ul style="list-style-type: none"> Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs 				
	<ul style="list-style-type: none"> Use test results to make predictions to set up further comparative and fair tests 				
	<ul style="list-style-type: none"> Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations 				
	<ul style="list-style-type: none"> Identify scientific evidence that has been used to support or refute ideas or arguments 				
Our changing world	<ul style="list-style-type: none"> Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution 				
	<ul style="list-style-type: none"> Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents 				
	<ul style="list-style-type: none"> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals 				
Module 1: The nature library	<ul style="list-style-type: none"> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals 				
	<ul style="list-style-type: none"> Give reasons for classifying plants and animals based on specific characteristics. 				
Module 2: Body pump	<ul style="list-style-type: none"> Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood 				
	<ul style="list-style-type: none"> Describe the ways in which nutrients and water are transported within animals, including humans 				
Module 3: Body health	<ul style="list-style-type: none"> Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function 				

SNAP SCIENCE | YEAR 6 | INDIVIDUAL RECORD-KEEPING

Name: _____ Class: _____ Date: _____

	National curriculum statement	Mastery not yet achieved	Mastery achieved	Mastery achieved & exceeded	Comment
Module 4: Everything changes	<ul style="list-style-type: none"> Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago 				
	<ul style="list-style-type: none"> Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents 				
	<ul style="list-style-type: none"> Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution 				
Module 5: Danger, low voltage!	<ul style="list-style-type: none"> Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit 				
	<ul style="list-style-type: none"> Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches 				
	<ul style="list-style-type: none"> Use recognised symbols when representing a simple circuit in a diagram 				
Module 6: Light up your world	<ul style="list-style-type: none"> Recognise that light appears to travel in straight lines 				
	<ul style="list-style-type: none"> Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye 				
	<ul style="list-style-type: none"> Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes 				
	<ul style="list-style-type: none"> Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them 				
Overall mastery level					

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Working Scientifically

[illegible]

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Our changing world

Pupil name	Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution	Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution	Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 1: The nature library

Pupil name	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals	Give reasons for classifying plants and animals based on specific characteristics

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals	Give reasons for classifying plants and animals based on specific characteristics

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 2: Body pump

Pupil name	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood	Describe the ways in which nutrients and water are transported within animals, including humans

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood	Describe the ways in which nutrients and water are transported within animals, including humans

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 3: Body health

Pupil name	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 4: Everything changes

Pupil name	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago	Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago	Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 5: Danger, low voltage!

Pupil name	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit	Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches	Use recognised symbols when representing a simple circuit in a diagram

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit	Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches	Use recognised symbols when representing a simple circuit in a diagram

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Module 6: Light up your world

Pupil name	Recognise that light appears to travel in straight lines	Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye	Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes	Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

SNAP SCIENCE | YEAR 6 | WHOLE-CLASS RECORD-KEEPING

Class: _____ Date: _____

Pupil name	Recognise that light appears to travel in straight lines	Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye	Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes	Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them

Enter NYA for mastery not yet achieved, A for mastery achieved, or A&E for mastery achieved and exceeded

William Collins' dream of knowledge for all began with the publication of his first book in 1819.

A self-educated mill worker, he not only enriched millions of lives, but also founded a flourishing publishing house. Today, staying true to this spirit, Collins books are packed with inspiration, innovation and practical expertise. They place you at the centre of a world of possibility and give you exactly what you need to explore it.

Collins. Freedom to teach.

An imprint of HarperCollinsPublishers
The News Building
1 London Bridge Street
London
SE1 9GF

Browse the complete Collins catalogue at www.collins.co.uk
--

© HarperCollinsPublishers Limited 2015

This edition published 2016.

10 9 8 7 6 5 4 3 2 1

ISBN 978-0-00-819933-3

Liz Lawrence, Nicola Beverley and Bryony Turford assert their moral rights to be identified as the authors of this work.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the Publisher or a licence permitting restricted copying in the United Kingdom issues by the Copyright Licensing Agency Ltd., 90 Tottenham Court Road, London W1T 4LP.

British Library Cataloguing in Publication Data

A catalogue record for this publication is available from the British Library.

Commissioned by Tom Guy and Fiona McGlade

Series edited by Jane Turner

Proofread by Sophia Ktori

Typeset by Paul Manning, Ken Vail Graphic Design and Jouve India Private Limited

Illustrated by Beehive Illustrations and Ann Paganuzzi

Concept design: Amparo Barrera and Jouve India Private Limited

ACKNOWLEDGEMENTS

The publishers wish to thank the following for permission to reproduce photographs. Every effort has been made to trace copyright holders and to obtain their permission for the use of copyright materials. The publishers will gladly receive any information enabling them to rectify any error or omission at the first opportunity.

(t = top, c = centre, b = bottom, r = right, l = left)

Year 1: Describe and compare p1 tr Alexander Rath/Shutterstock, p1 bl Bluehand/Shutterstock, p1 bc Picturepartners/Shutterstock, p1 br Vangert/Shutterstock, p2 tl Tratong/Shutterstock, p2 tc JDCarballo/Shutterstock, p2 tr John Kasawa/Shutterstock, p2 tcl Jgade/Shutterstock, p2 tcc Hintau Aliaksei/Shutterstock, p2 tcr Vitalii Hulai/Shutterstock, p2 bcl Computer Earth/Shutterstock, p2 bcc Tsekhmister/Shutterstock, p2 bcr Eric Isselee/Shutterstock, p2 bl Peter Wollinga/Shutterstock, p2 bc WithGod/Shutterstock, p2 br Eric Isselee/Shutterstock, p3 tl Leksele/Shutterstock, p3 tc Eric Isselee/Shutterstock, p3 tr Eric Isselee/Shutterstock, p3 tcl Eric Isselee/Shutterstock, p3 tcc Michiel de Wit/Shutterstock, p3 tcr Sarah2/Shutterstock, p3 bcl Panbazil/Shutterstock, p3 bcc Eric Isselee/Shutterstock, p3 bcr Eric Isselee/Shutterstock, p3 bl Nataliia Antonova/Shutterstock, p3 bc Marina Jay/Shutterstock, p3 br Cmnaumann/Shutterstock, **Name that Animal!** p1 tr Alexander Rath/Shutterstock, p1 bl Bluehand/Shutterstock, p1 bc Picturepartners/Shutterstock, p1 br Vangert/Shutterstock, p2 tl Tratong/Shutterstock, p2 tc JDCarballo/Shutterstock, p2 tr John Kasawa/Shutterstock, p2 tcl Jgade/Shutterstock, p2 tcc Hintau Aliaksei/Shutterstock, p2 tcr Vitalii Hulai/Shutterstock, p2 bcl Computer Earth/Shutterstock, p2 bcc Tsekhmister/Shutterstock, p2 bcr Eric Isselee/Shutterstock, p2 bl Peter Wollinga/Shutterstock, p2 bc WithGod/Shutterstock, p2 br Eric Isselee/Shutterstock, p3 tl Leksele/Shutterstock, p3 tc Eric Isselee/Shutterstock, p3 tr Eric Isselee/Shutterstock, p3 tcl Eric Isselee/Shutterstock, p3 tcc Michiel de Wit/Shutterstock, p3 tcr Sarah2/Shutterstock, p3 bcl Panbazil/Shutterstock, p3 bcc Eric Isselee/Shutterstock, p3 bcr Eric Isselee/Shutterstock, p3 bl Nataliia Antonova/Shutterstock, p3 bc Marina Jay/Shutterstock, p3 br Cmnaumann/Shutterstock, **Name that Part!** p3 Alekcey/Shutterstock, p4 Catalin Petolea/Shutterstock, p5 Elena Larina/Shutterstock, p5 inset Whiteaster/Shutterstock, p6 Bildagentur Zoonar GmbH/Shutterstock, p7 Filipe B. Varela/Shutterstock, p8 Richard Griffin/Shutterstock, p9 LilKar/Shutterstock, p10 Oksana2010/Shutterstock, p11 Alexander62/Shutterstock, p12 FLPA/Alamy, p12 inset Snowturtle/Shutterstock, **Name that Plant!** p1 tl Irin-k/Shutterstock, p1 tr Tinnko/Shutterstock, p1 cl Kkulikov/Shutterstock, p1 cr Iakov Kalinin/Shutterstock, p1 bl Chad Zuber/Shutterstock, p1 bcl Labrador Photo Video/Shutterstock, p1 brc Bildagentur Zoonar GmbH/Shutterstock, p1 brc AP Photography/Shutterstock, p2 tl Jordan Tan/Shutterstock, p2 tr Evgeni_S/Shutterstock, p2 ctl TagStock1/Shutterstock, p2 ctr Richard Griffin/Shutterstock, p2 cbl Ntdanai/Shutterstock, p2 cbr Blueeyes/Shutterstock, p2 bl Adisa/Shutterstock, p2 br Sabza/Shutterstock, p3 tl Brykaylo Yuriy/Shutterstock, p3 tl top inset Martin Fowler/Shutterstock, p3 tr Filmfoto/Shutterstock, p3 tr inset Zadiraka Evgenii/Shutterstock, p3 bl Kosam/Shutterstock, p3 bl right inset Aleks.k/Shutterstock, p3 bl left inset MarkMirror/Shutterstock, p3 br Badahos/Shutterstock, p3 br inset Eugene Sergeev/Shutterstock, p4 tl Andrew Fletcher/Shutterstock, p4 tl inset Bildagentur Zoonar GmbH/Shutterstock, p4 tr Konrad Weiss/Shutterstock, p4 tr inset ArTDi101/Shutterstock, p4 bl Volker Rauch/Shutterstock, p4 bl inset Whiteaster/Shutterstock, p4 br Marilyn Barbone/Shutterstock, p4 br inset Snowturtle/Shutterstock, **Whatever the weather** p2 Tomsickova Tatyana/Shutterstock, p3 Daxiao Productions/Shutterstock, p4 Blend Images/Shutterstock, p5 Elena Efimova/Shutterstock, p6 John Wollwerth/Shutterstock, **Which season is which?** p1 tl Jean Morrison/Shutterstock, p1 tr Images72/Shutterstock, p1 cl Kirillov Alexey/Shutterstock, p1 cr Stefan Holm/Shutterstock, p1 bl Cheryl E. Davis/Shutterstock, p1 br Sally Wallis/Shutterstock, p2 tl Zeljko Radojko/Shutterstock, p2 tr Manfredxy/Shutterstock, p2 cl MarciSchauer/Shutterstock, p2 cr 1000 Words/Shutterstock, p2 bl Ian Woolcock/Shutterstock, p2 br Smileus/Shutterstock, p3 tl Becky Wass/Shutterstock, p3 tr S.Cooper Digital/Shutterstock, p3 cl Mikhail Hoboton Popov/Shutterstock, p3 cr Ulrich Mueller/Shutterstock, p3 bl BMJ/shutterstock, p3 br Alexander Chaikin/Shutterstock, p4 tl 1000 Words/Shutterstock, p4 tr Kmichal/Shutterstock, p4 cl Karin Jaehne/Shutterstock, p4 cr Pavel Vakhrushev/Shutterstock, p4 bl AnglianArt/Shutterstock, p4 br Goodluz/Shutterstock, **Who eats what?** p1 tl Jajaladdawan/Shutterstock, p1 tr Redchanka/Shutterstock, p1 ctr Thomas_Zsebok/Shutterstock, p1 cbl SeDmi/Shutterstock, p1 bl Mgfoto/Shutterstock, p1 br Alexander Rath/Shutterstock, p2 tl Eric Isselee/Shutterstock, p2 tc Pakhnyushchy/Shutterstock, p2 tr Eric Isselee/Shutterstock, p2 tbl Eric Isselee/Shutterstock, p2 tbc Subbotina Anna/Shutterstock, p2 tbr Ilya Akinshin/Shutterstock, p2 tcl Eric Isselee/Shutterstock, p2 tcc Eric Isselee/Shutterstock, p2 tcr Istomina Olena/Shutterstock, p2 bcl IrinaK/shutterstock, p2 bcc Eric Isselee/Shutterstock, p2 bcr Eric Isselee/Shutterstock, p2 tbl Minerva Studio/Shutterstock, p2 tbc Kaphoto/Getty Images, p2 tbr Aksenova Natalya/Shutterstock, p2 bl Cynoclub/Shutterstock, p2 bc Iakov Filimonov/Shutterstock, p2 br Ok.nazarenko/Shutterstock.

Year 2: All grown up! p1 tl michaeljung/Shutterstock, p1 tc Jani Bryson/iStock, p1 tr Katrina Elena/Shutterstock, p1 bc Rawpixel.com/Shutterstock, p1 br Air Images/Shutterstock, **Basic needs** p2 tl Elena Elisseeva/Shutterstock, p2 tc Eric Isselee/Shutterstock, p2 tr vanchai/Shutterstock, p2 bl Aksenova Natalya/Shutterstock, p2 bc Michiel de Wit/Shutterstock, **Caring for ourselves** p1 Patrick Foto/Shutterstock, p3 Sarah Noda/Shutterstock, **Growing plants** p2 tl de2marco/Shutterstock, p2 tr sonnenklang-photo/Shutterstock, p2 tcl sonnenklang-photo/Shutterstock, p2 tcr sonnenklang-photo/Shutterstock, p2 bcl sonnenklang-photo/Shutterstock, p2 bcr Zoonar GmbH/Alamy, p2 bl Richard Griffin/Shutterstock, p3 tl, tr, ctl, ctr Alena Brozova/Shutterstock, p3 cbl Denis and Yulia Pogostins/Shutterstock, p3 cbr Alla Dmitrijeva/Shutterstock, p3 bl Denis and Yulia Pogostins/Shutterstock, p3 br Denis and Yulia Pogostins/Shutterstock, **Name that living thing!** p1 tl Anna Hoychuk/Shutterstock, p1 tc vladimir salman/Shutterstock, p1 tr marilyn barbone/Shutterstock, p1 bl mambo6435/Shutterstock, p1 bc Mark Eastment/Shutterstock, p1 br Galyna Andrushko/Shutterstock, p2 tl Dmitry Naumov/Shutterstock, p2 tc Anthony Hall/Shutterstock, p2 tr Paul Wishart/Shutterstock, p2 cl Jane Rix/Shutterstock, p2 c Decha Thapanya/Shutterstock, p2 cr

Mila Drumeva/Shutterstock, p2 bl Pavel Kovacs/Shutterstock, p2 bc Maryna Pleshkun/Shutterstock, p2 br Dieter Hawlan/Shutterstock, p3 tl peppi18/Shutterstock, p3 tc SIHASAKPRACHUM/Shutterstock, p3 tr Colin Robert Varndell/Shutterstock, p3 bl Nikola Spasenoski/Shutterstock, p3 bc Jacqueline Moore/Shutterstock, **Odd one out** p1 tl Neirfy/Shutterstock, p1 tc vanchai/Shutterstock, p1 tr Madlen/Shutterstock, p1 cl kzww/Shutterstock, p1 c Danny Smythe/Shutterstock, p1 cr Abel Tumik/Shutterstock, p1 bl Colin Robert Varndell/Shutterstock, p1 bc Subbotina Anna/Shutterstock, p1 br badahos/Shutterstock, p2 tl Olga Nikonova/Shutterstock, p2 tc Madlen/Shutterstock, p2 tr ajt/Shutterstock, p2 cl Labrador Photo Video/Shutterstock, p2 c ajt/Shutterstock, p2 cr vanchai/Shutterstock, p2 bl Aggie 11/Shutterstock, p2 bc Danny Smythe/Shutterstock, p2 br Labrador Photo Video/Shutterstock, **Plant doctor** p2 t Ansis Klucis/Shutterstock, p2 b Ansis Klucis/Shutterstock, p3 t Lucie Lang/Shutterstock, p3 b Richard Griffin/Shutterstock, p4 t MindStorm/Shutterstock, p4 b Michaela Stejskalova/Shutterstock, p5 t Muskoka Stock Photos/Shutterstock, p5 b LanKS/Shutterstock, p6 t canoniroff/Shutterstock, p6 b ajlatan/Shutterstock, p7 t Jerry-Rainey/Shutterstock, p7 b Maxal Tamor/Shutterstock, p8 t Nigel Cattlin/Alamy, p8 b Nigel Cattlin/Alamy, p9 t Martyn F. Chillmaid/Science Photo Library, p9 b Martyn F. Chillmaid/Science Photo Library, **Which materials are suitable?** p1 Trudy Wilkerson/Shutterstock, p2 t csp_ocusfocus/Fotosearch, p2 b Atiketta Sangasaeng/Shutterstock, p3 t Venus Angel/Shutterstock, p3 b HandmadePictures/Shutterstock, **Who eats what?** p1 tl Andrew Burgess/Shutterstock, p1 tc Julia Liang B Nielsen/Shutterstock, p1 tr Kuttelvaserova Stuchelova/Shutterstock, p1 bl SeDmi/Shutterstock, p1 bc Istomina Olena/Shutterstock, p1 br Eric Isselee/Shutterstock, p2 tl Volodymyr Krasnyuk/Shutterstock, p2 tc Roman Tsubin/Shutterstock, p2 tr IrinaK/Shutterstock, p2 cl S-F/Shutterstock, p2 c Smileus/Shutterstock, p2 cr Eric Isselee/Shutterstock, p2 bl Eric Isselee/Shutterstock, p2 bc Eric Isselee/Shutterstock, **Who lives here?** p1 tl Shchipkova Elena/Shutterstock, p1 tc Perutskyi Petro/Shutterstock, p1 tr Ok.nazarenko/Shutterstock, p1 bl snowlena/Shutterstock, p1 bc Eric Isselee/Shutterstock, p1 br Computer Earth/Shutterstock, p2 tl Mike Truchon/Shutterstock, p2 tc IrinaK/Shutterstock, p2 tr Eric Isselee/Shutterstock, p2 cl Eric Isselee/Shutterstock, p2 c Lovely Bird/Shutterstock, p2 cr Michiel de Wit/Shutterstock, p2 bl alexytrener/Shutterstock, p2 bc Pan Xunbin/Shutterstock, p2 br Istomina Olena/Shutterstock, p3 seawhisper/Shutterstock.

Year 3: Contact force or not p1 tl italianestro/Shutterstock, p1 tr Mitrofanov Alexander/Shutterstock, p1 bl Vadim Georgiev/Shutterstock, p1 br Taweesak Inmek/Shutterstock, p2 tl KPG_Payless/Shutterstock, p2 tr Zhukov Oleg/Shutterstock, p2 tcl Jambro/Shutterstock, p2 tcr mykeyruna/Shutterstock, p2 bcl Vasilyev Alexandr/Shutterstock, p2 bcr takasu/Shutterstock, p2 bl Paul Rinsdale Pictures/Alamy, **Flowering plant life cycles** p2 tl Kajano/Shutterstock, p2 tr Vespa/Shutterstock, p2 cl Alexander62/Shutterstock, p2 cr Arina P Habich/Shutterstock, p2 bl Sailorr/Shutterstock, p2 br alexmak72427/Shutterstock, p3 tl azure/Shutterstock, p3 tr Jorge Salcedo/Shutterstock, p3 bl Carsten Medom Madsen/Shutterstock, p3 br Artistas/Shutterstock, **Fossil formation** p1 Freelmages/iStock, **Slow down or speed up?** p1 tl Andrew Buckin/Shutterstock, p1 tr Lubava/Shutterstock, p1 cl Africa Studio/Shutterstock, p1 cr CarpathianPrince/Shutterstock, p1 bl studiovin/Shutterstock, p1 br mimagephotography/Shutterstock, p2 tl Franck Boston/Shutterstock, p2 tr Venus Angel/Shutterstock, p2 cl Design Pics Inc/Alamy, p2 cr designelements/Shutterstock, p2 bl MyImages - Micha/Shutterstock, p2 br Pakhnyushchy/Shutterstock, **True or false: skeleton** p1 tl Jan Martin Will/Shutterstock, p1 tr fivespots/Shutterstock, p1 cl JIANG HONGYAN/Shutterstock, p1 cr Valentina Proskurina/Shutterstock, p1 bl Lisa F. Young/Shutterstock, p1 br gualtiero boffi/Shutterstock, p2 tl pzAxe/Shutterstock, p2 tr vanchai/Shutterstock, p2 tcr cynoclub/Shutterstock, p2 bcl Pan Xunbin/Shutterstock, p2 bcr nattan726/Shutterstock, p2 bl Eric Isselee/Shutterstock, **What do we need to see?** p1 tl schankz/Shutterstock, p1 tr Peter Kotoff/Shutterstock, p2 tl Pakhnyushchy/Shutterstock, p2 tr Dragance137/Shutterstock, p2 cl gmstockstudio/Shutterstock, p2 cr David Ionut/Shutterstock, p2 bl tankist276/Shutterstock, p2 br Siwawut Phoophinyo/Shutterstock, **What if? Plant parts** p2 wacpan/Shutterstock, p3 bendzhik/Shutterstock, p4 Igor Marx/Shutterstock, p5 Margrit Kropp/Shutterstock, p6 Nordling/Shutterstock, p7 unpict/Shutterstock, p8 Ake13bk/Shutterstock, p9 azure/Shutterstock.

Year 4: Changes of state p1 tl Karin Hildebrand Lau/Shutterstock, p1 tr Shane Trotter/Shutterstock, p1 tcl PeterMooij/Shutterstock, p1 tcr JP Chretien/Shutterstock, p1 bcl Ronald Sumners/Shutterstock, p1 bcr kazoka/Shutterstock, p1 bl ub-foto/Shutterstock, p1 br Paul Reid/Shutterstock, **Digestion** p1 tl sciencepics/Shutterstock, p1 tr Alex Mit/Shutterstock, p1 cl Alamy, p1 cr sciencepics/Shutterstock, p1 bl sciencepics/Shutterstock, **Does it use electricity?** p1 tl Umberto Shtanzman/Shutterstock, p1 tc studiovin/Shutterstock, p1 tr Maksym Dykha/Shutterstock, p1 tcl topseller/Shutterstock, p1 tc canonzoom/Shutterstock, p1 tcr taelove7/Shutterstock, p1 cl Mediablitzimages/Shutterstock, p1 c andreaciox/Shutterstock, p1 cr tale/Shutterstock, p1 bcl AlexRoz/Shutterstock, p1 bc bogdan ionescu/Shutterstock, p1 bcr koka55/Shutterstock, p1 bl Sashkin/Shutterstock, p1 bc nuwatphoto/Shutterstock, p1 br Es sarawuth/Shutterstock, **Electrical conductors and insulators** p1 Alexander Kazantsev/Shutterstock, **Identification keys** p2 tl Edwin Butter/Shutterstock, p2 tr Whiteaster/Shutterstock, p2 cl Vincze Szabi/Shutterstock, p2 cr Kefca/Shutterstock, p2 bl AlexusK/Shutterstock, p2 br Korionov/Shutterstock, p3 tl margaret/Shutterstock, p3 tl inset Kathy Clark/Shutterstock, p3 tr tinnko/Shutterstock, p3 cl Steve McWilliam/Shutterstock, p3 cr LorraineHudgins/Shutterstock, p3 bl Calin Tatu/Shutterstock, p3 bl inset Nastya Glazneva/Shutterstock, p3 br Opachevsky Irina/Shutterstock, **Odd one out: animals** p1 tl Vlad61/Shutterstock, p1 tc francesco de marco/Shutterstock, p1 tr Randimal/Shutterstock, p1 tcl Tom Reichner/Shutterstock, p1 tc Raffaella Calzoni/Shutterstock, p1 tcr Achimdiver/Shutterstock, p1 cl Sergei25/Shutterstock, p1 c Raffaella Calzoni/Shutterstock, p1 cr Achimdiver/Shutterstock, p1 bcl Colin Edwards Wildside/Shutterstock, p1 bc Sergei25/Shutterstock, p1 bcr Dennis W. Donohue/Shutterstock, p1 bl Rudmer Zwerver/Shutterstock, p1 bc Villiers Steyn/Shutterstock, p1 br Raffaella Calzoni/Shutterstock, **Positive or negative?** p1 tl EduardSV/Shutterstock, p1 tr Travel Pictures/Alamy, p1 tcl Ed Buziak/Alamy, p1 tcr Christopher Bissell/Getty Images, p1 bcl

Dmitry Kalinovsky/Shutterstock, p1 bcr A ROOM WITH VIEWS/Alamy, p1 bl DavidYoung/Shutterstock, p1 br Brian Guest/Shutterstock, p2 tl EduardSV/Shutterstock, p2 tr EMJAY SMITH/Shutterstock, p2 cl ZUMA Press, Inc./Alamy, p2 cr Philip Fenton Lrps/Getty Images, p2 bl iofoto/Shutterstock, p2 br Stock Connection Blue/Alamy, **Who eats who?** p1 tl Aleksandar Mijatovic/Shutterstock, p1 tr Kletr/Shutterstock, p1 cl Erni/Shutterstock, p1 cr Beth Swanson/Shutterstock, p1 bl Krzysztof Odziomek/Shutterstock, p1 br Brian Lasenby/Shutterstock.

Year 5: Birth to old age p1 tl Lichtmeister/Shutterstock, p1 tlc Fnsy/Shutterstock, p1 tcl Handmademedia/Dreamstime, p1 tcr csp_stockyimages/Fotosearch, p1 trc GoodMood Photo/Shutterstock, p1 trc michaeljung/Shutterstock, p1 b FXQuadro/Shutterstock, **Can we change it back?** p1 tl Fabiela Photography/Getty Images, p1 trc Peter Doomen/Shutterstock, p1 bl Lori Sparkia/Shutterstock, p1 br sjeacle/Shutterstock, p2 tl Iakov Filimonov/Shutterstock, p2 trc Joe Gough/Shutterstock, p2 cl gosphotodesign/Shutterstock, p2 cr gwolters/Shutterstock, p2 bl mmcool/Shutterstock, p2 br sunstep/Shutterstock, **Starting all over again – animals** p2 tl john michael evan potter/Shutterstock, p2 trc Mr. SUTTIPON YAKHAM/Shutterstock, p2 tcl Igor Chernomorchenko/Shutterstock, p2 tcr outdoorsman/Shutterstock, p2 bcl TravelMediaProductions/Shutterstock, p2 bcr Targn Pleiades/Shutterstock, p2 bl Robert L Kothenbeutel/Shutterstock, p2 br Sergei25/Shutterstock, p3 tl ninii/Shutterstock, p3 trc Leena Robinson/Shutterstock, p3 tcl Reinhold Leitner/Shutterstock, p3 tcr SOMMAI/Shutterstock, p3 bcl Hector Ruiz Villar/Shutterstock, p3 bcr Marek R. Swadzba/Shutterstock, p3 bl Tom Reichner/Shutterstock, p3 br Hector Ruiz Villar/Shutterstock, **What is the same and what is different?** p2 tl john michael evan potter/Shutterstock, p2 trc Mr. SUTTIPON YAKHAM/Shutterstock, p2 tcl Igor Chernomorchenko/Shutterstock, p2 tcr outdoorsman/Shutterstock, p2 bcl TravelMediaProductions/Shutterstock, p2 bcr Targn Pleiades/Shutterstock, p2 bl Robert L Kothenbeutel/Shutterstock, p2 br Sergei25/Shutterstock, p3 tl ninii/Shutterstock, p3 trc Leena Robinson/Shutterstock, p3 tcl Reinhold Leitner/Shutterstock, p3 tcr SOMMAI/Shutterstock, p3 bcl Hector Ruiz Villar/Shutterstock, p3 bcr Marek R. Swadzba/Shutterstock, p3 bl Tom Reichner/Shutterstock, p3 br Hector Ruiz Villar/Shutterstock.

Year 6: Environmental change p1 tl Victor1212/Shutterstock, p1 tr balounm/Shutterstock, p1 bl EMJAY SMITH/Shutterstock, p2 tl Yorkman/Shutterstock, p2 tre Vadym Zaitsev/Shutterstock, p2 cl Kent Weakley/Shutterstock, p2 cr antb/Shutterstock, p2 bl Manamana/Shutterstock, p2 br elwynn/Shutterstock, p3 tl Bernadette Heath/Shutterstock, p3 tc Tom Reichner/Shutterstock, p3 tr Erni/Shutterstock, p3 cl EcoPrint/Shutterstock, p3 c crazystocker/Shutterstock, p3 cr Laurent Renault/Shutterstock, p3 bl Bildagentur Zoonar GmbH/Shutterstock, p3 bc Chiharu/Shutterstock, p3 br Gayvoronskaya_Yana/Shutterstock, **Looking for clues** p1 tl Rainer Fuhrmann/Shutterstock, p1 cr AlessandroZocc/Shutterstock, p1 bl Bernhard Richter/Shutterstock, **What if? Consequences** p1 l TravelMediaProductions/Shutterstock, p1 r E. O./Shutterstock, **What is the same and what is different?** p2 tl john michael evan potter/Shutterstock, p2 trc Mr. SUTTIPON YAKHAM/Shutterstock, p2 tcl Igor Chernomorchenko/Shutterstock, p2 tcr outdoorsman/Shutterstock, p2 bcl TravelMediaProductions/Shutterstock, p2 bcr Targn Pleiades/Shutterstock, p2 bl Robert L Kothenbeutel/Shutterstock, p2 br Sergei25/Shutterstock, p3 tl ninii/Shutterstock, p3 trc Leena Robinson/Shutterstock, p3 tcl Reinhold Leitner/Shutterstock, p3 tcr SOMMAI/Shutterstock, p3 bcl Hector Ruiz Villar/Shutterstock, p3 bcr Marek R. Swadzba/Shutterstock, p3 bl Tom Reichner/Shutterstock, p3 br Hector Ruiz Villar/Shutterstock, **Who am I?** p1 tl Kotenko Oleksandr/Shutterstock, p1 tlc komkrit Preechachanwate/Shutterstock, "p1 trc mikedray /Shutterstock," p1 tr Lucie Zapletalova/Shutterstock, p1 cl Leena Robinson/Shutterstock, p1 clc anat chant/Shutterstock, p1 crc PHOTOCREO Michal Bednarek/Shutterstock, p1 cr Lehakok/Dreamstime, p1 bl EcoPrint/Shutterstock, p1 blc Roy Pedersen/Shutterstock, p1 brc Soru Epotok/Shutterstock, p1 br Joe McDonald/Shutterstock, p2 tl Rich Carey/Shutterstock, p2 tlc yevgeniy11/Shutterstock, p2 tclc Eric Isselee/Shutterstock, p2 tcr USBFCO/Shutterstock, p2 tr Vitalii Hulai/Shutterstock, p2 tcl yevgeniy11/Shutterstock, p2 tclc Eric Isselee/Shutterstock, p2 tcr Andrii Malkov/Shutterstock, p2 tcr Henrik Larsson/Shutterstock, p2 cl Henrik Larsson/Shutterstock, p2 clc Valentina Proskurina/Shutterstock, p2 crc Dmitry Strizhakov/Shutterstock, p2 cr Nicholas Piccillo/Shutterstock, p2 bcl nuwatphoto/Shutterstock, p2 bclc ShaunWilkinson/Shutterstock, p2 bcr Krasowit/Shutterstock, p2 bcr Hhelene/Shutterstock, p2 bl Aksenova Natalya/Shutterstock, p2 blc photomaster/Shutterstock, p2 brc Eric Isselee/Shutterstock, p2 br Eric Isselee/Shutterstock, p3 tl irin-k/Shutterstock, p3 tlc Photoonlife/Shutterstock, p3 trc blackboard1965/Shutterstock, p3 tr Susan Schmitz/Shutterstock, p3 tcl Henrik Larsson/Shutterstock, p3 tclc Andre Mueller/Shutterstock, p3 tcr Eric Isselee/Shutterstock, p3 tcr rprongjai/Shutterstock, p3 cl Eric Isselee/Shutterstock, p3 clc arka38/Shutterstock, p3 crc Eric Isselee/Shutterstock, p3 cr photomaster/Shutterstock, p3 bcl Georgy Gerkushenko/Shutterstock, p3 bclc Tim Stirling/Shutterstock, p3 bcr okawa somchai/Shutterstock, p3 bcr Seksan44/Shutterstock, p3 bl Albrus/Shutterstock, p3 blc Aleksandar Mijatovic/Shutterstock, p3 brc Sue Burton PhotographyLtd/Shutterstock, p3 br Carlos Amarillo/Shutterstock.