Year 3 Rocks

Scientific Enquiry Covered	Rocket Words Covered	Name of Task / Tasks	Resources Needed	Summative Quiz Questions
Use relevant scientific language to discuss your ideas to communicate your findings	mountain, Europe, hill, Himalayas, Alps	Mountain Modelling	Scissors, Stiff card Coloured pens/ pencils/ paper, Other appropriate craft materials, *Handout - Mission to Write! Mountain Storyboard.*	Where are the mountains called the Alps? Know if a mountain is a made of rock and earth and rises above the land on which it sits. A mountain has to be over 600 metres tall or it would be called a hill. Which of these is a type of rock? Complete the statement: The Himalayas and {{Alps}} are both sets of {{folded mountains}} that were created when a huge force pushed parts of the Earth's {{crust}} upwards to form {{mountains}}. The Himalayas were once on the {{bottom of the ocean}}. Recognise what a folded mountain looks like.
Create a comparative model	metamorphic rock, igneous rock, sedimentary rock, magma, mineral	Make a sedimentary, igneous, and metamorphic rock using chocolate	dark chocolate, milk chocolate, white chocolate , grater , small grip seal bag , glass of hot water , paper , teaspoon, Handout	When a volcano erupts, it shoots out...? Complete the statement: Rocks are generally made of {{chemicals}} called minerals. {{Metamorphic}} rocks are made when a combination of {{heat}} and pressure causes great physical and chemical changes in {{some rock}}, transforming the look of the rock and even changing the {{minerals}} that were there in the first place. True or False: The word 'metamorphosis' means to change shape. Rocks made when magma from a volcano cools and becomes hard is called...? True or False: Limestone is made mostly of compressed bones and shells of millions of tiny creatures.
Gather, record, classify and present data in a variety of ways to help in answering questions	lichen, acid rain, chemical weathering, physical weathering, biological weathering	Identifying Rocks	*Identifying Rocks Handout*, *Rock Audit Handout* a visit to the local cemetary or a photo of the local cemetery	What are gravestones? What sort of things can make a gravestone wear down? Complete the statement: {{Physical}} weathering is when water from rain gets into {{cracks}} in a rock such as a {{gravestone}}, the water freezes, expands (because when water freezes it {{gets bigger}} than when it was a liquid), then this makes the crack in the rock become even {{bigger}}. {{Chemical}} weathering is when things in the air like pollution from {{factories and cars}}, or acids within rain, attack the {{surface}} of the rock and wear it away. Which of these shows weathering on a gravestone, and which shows no sign of weathering? What effects can weathering have on a gravestone?
Set up simple practical enquiries, comparative and fair tests	marble, sandstone, limestone, flake, granite	Test rocks for absorbency	*Rock Absorbency*, range of rocks, magnifying glass, bucket of water handout, *Graveyard Visit*, Handout, Pen, Camera (optional), *Gravestone Design*, Handout, Pen / pencils Books / internet for research	What kind of rock is sandstone? Complete the statement: Weathering on a {{sandstone}} gravestone can produce {{flakes}} which fall off leaving an {{uneven}} surface. Sometimes the flake stays attached to the stone and small {{creatures}} come to {{live}} in the shelter of the gap. Plant {{roots}} can grow into cracks in the stones and, as they grow, they make the cracks wider. These are examples of {{biological}} weathering. True or false: Limestone is made mainly of a chemical which dissolves over time when rainwater falls on it. The fossils of extinct animals are sometimes found on a gravestone when weathering has worn away part of the surface. What does extinct mean? Which of these are rocks and commonly used in gravestones?
Record findings using simple scientific language, drawings and labelled diagrams	fossil, amber, Jurassic Coast, seashell, extinct	Exploring fossils	*Fossil Challenge,* Handout *Make a Fossil in Amber* , Water, Lemon or orange squash, Plastic spiders or insects, Plastic tubs, Freezer	What is a fossil? How long does it take for a fossil to form? Complete the statement: The {{Jurassic Coast}} is an area of coastline along the southern end of the {{UK}}. This area has become famous for the amount of {{fossils}} that have been found there. The poem She Sells {{Seashells}} on the Seashore is based on the life of Mary Anning, a lady who found thousands of fossils along this particular coastline. What does extinct mean? Which of these are fossils and which are not?
Perform an investigative test	peat, clay soil, chalky soil, sandy soil, texture	Soil Types Investigation	Four dry soil samples, Filter paper, Funnel, Beaker, Water, Hand washing facilities, *Handout*, *Handout - Mission to Write! Soil Descriptions*	Which of these are types of soil? What is the process called that describes rocks being broken down into smaller pieces, that help make up soil? Complete the statement: The word '{{decompose}}' means to be broken down into smaller parts after {{death}}. After a while, and sometimes with help from {{decomposers}} such as flies, fungi and {{bacteria}}, the animals or plants {{rot}} away and leave {{nutrients}} behind, that enrich the soil they were laying in. True or false: Clay soil is thin and water pours easily through it. What is manure?
Use simple scientific language to explain your findings	sandstone, marble, slate, granite, grain size	Identifying Rocks	Download handouts, plans and more Samples of granite, sandstone, marble, and slate. *Handout*	Which of these images show granite and which show marble? *Select the missing words in the text* Marble has many different uses. Blocks of marble are used to make **Select...** and **Select...**. Crushed marble is used in **Select...** , some cleaning products, and some **Select...**. Which is a sedimentary rock? Granite is usually more than one colour because it is made of different minerals. What colours from the list below can be found in granite? Rocks were a common building material in the past, but which materials have replaced them?

Describe how mountains are formed

Recognise the differences between igneous, sedimentary, and metamorphic rock

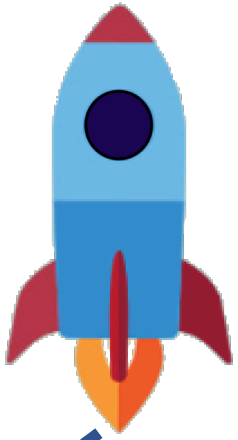
Observe rocks, including those used in buildings and gravestones

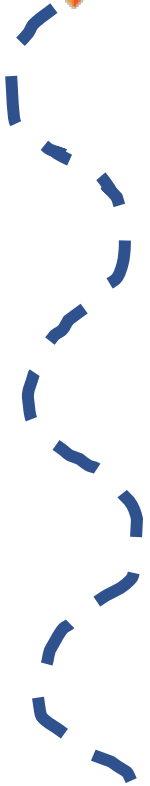
Classify different types of gravestone weathering

Understand what a fossil is

Describe what soils are made of

Identify common rocks





Developing Experts™

Year 3 Forces and Magnets

Understand magnetism

Learn about the different types of magnets

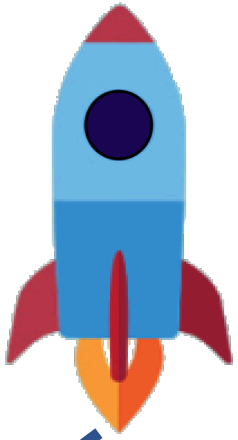
Know that the Earth behaves like a magnet

Learn about magnetic fields; learn about the law of magnetic attraction

Know that magnetic needles always point magnetic north

Compare how things move on different surfaces

Scientific Enquiry Covered	Rocket Words Covered	Name of Task / Tasks	Resources Needed	Summative Quiz Questions
Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	lodestone, iron, ore, attract, magnetic strip	Testing magnetic materials	*Testing Magnetism* , 1 magnet per child/pair, A selection of materials to test i.e. card, sponge, rubber etc. It is a good idea to include paperclips, iron nails as examples of magnetic, materials but also include aluminium foil to show not all metals are magnetic. *Handout*	What kind of magnet is this? Complete the statement: A magnet has an {{invisible}} force around it, that pulls other types of metal towards it. It only works on metals that have {{iron}} in them. It doesn't work on things like {{paper}}, {{plastic}}, {{cloth}}, or {{gold}}. True or false: There is a naturally magnetic stone called a loadstone. Name some places in which magnets are found. True or false: Magnets can pick up paperclips.
Investigate the properties and uses of various magnets	bar magnet, cow magnet, horseshoe magnet, disc magnet, flexible magnet	Identifying differences, similarities or changes related to simple scientific ideas and processes. How magnets repel and attract.	Handouts, plans **Comparing Magnets**, A selection of different types of magnets, i.e. bar magnet, horseshoe magnet, ring magnet, disc magnet, sphere magnet.	True or false: A sheep magnet is used by farmers to help prevent illnesses in sheep. What does this picture show? Where are the magnetic forces strongest on a bar magnet? What are the poles called on a magnet? True or false: Cow magnets are used to are used to remove sharp metal objects out of a cow's stomach (something they have eaten accidentally).
Make systematic and careful observations. Take accurate measurements using standard units, use a range of equipment	North Pole, magnetic field, molten rock, compass, solar radiation	Complete an orienteering challenge using a compass!	Handouts, *Orienteering Challenge Handout, Print Outs of chosen symbols, Map of School, Compass, Pen, Paper, Magnetic Investigation*, Variety of magnets - bar magnet, horseshoe magnet etc. Investigation Sheet	What is a 'summary'? Why does a compass point to the Earth's North Pole? True or false: A magnet will point towards the Earth's North Pole nearly all the time. Complete the statement: Molten {{iron}} moving around inside the {{Earth}} is what creates the magnetic field that surrounds it. Molten means {{melted}}. Some {{birds}} can sense the magnetic field as they {{fly around}} and it helps them {{go}} in the right {{direction}}. True or false: Pigeons can see magnetic fields that are around the Earth.
Set up simple practical enquiries, comparative and fair tests	attract, repel, propulsion, Maglev train, high speed train	Magnetic Shielding	Handouts, *Magnetic shielding* , paperclip, thin thread, something to hold the magnet, Selection of magnetic and non magnetic materials	True or false: A Maglev train is one that uses magnets to pull it down hard onto the train track. What happens when you take two bar magnets and bring both their north pole ends together? Complete the statement: The Maglev {{train}}, which can be found in {{China}} gets its name from the words '{{magnet}}' and 'levitation' (which means {{to lift}} into the air without touching). It can travel at speeds up to {{600}} km/h (kilometres per hour). This can be done by having {{north pole ends of}} magnets on the train and on the track. The Earth's magnetic forces is strongest at..? True or false: Propulsion is when something is pushed forwards.
Ask relevant questions to explore how magnets work	compass, magnetic needle, direction, orienteering, Magnetic North	Make a leaf compass	**Making a Compass** Needle (magnetic) - can use a paperclip instead Magnet Small leaf Dish of water *Handout*	What has a magnet in it and helps us find which way to go? True or false: A compass will point either north or south. If you face the way the needle of a compass is facing, what direction is behind you? Name some people that use compasses. Complete the statement: There are two North Poles. One is the {{geographic}} North Pole. This one is the place that is simply the most northern part of the {{world}}. The second is the {{magnetic}} North Pole, and this is where the {{magnetic field}} in the northern part of the Earth is at its {{strongest}}.
Gather, record, classify and present data in a variety of ways to help in answering questions	direction, surface, pendulum, tilt, friction	Have a go at seeing how objects slide over different surfaces!	*Handout* toy boat (or wooden block) thick books, stopwatch cardboard/wooded ramp, a selection of materials e.g. bubble wrap, cling-film, paper, felt, sandpaper	What is a pendulum? Which type of floor will a ball roll quickest on? Complete the statement: The distance an object travels depends on what the object {{looks like}}, what it is {{made of}}, how {{heavy}} it is, how {{hard}} a {{force}} is used, what it needs to travel {{through}}. True or false: When you go tenpin bowling, you have to throw a light ball down a wooden lane to try to knock over some skittles. The lightness of the ball makes it easy to knock the skittles over. What happens if you apply a force to an object that is already moving?



Developing Experts™

Year 3 Exploring the World of Plants

Describe the process of germination in seeds and bulbs

Asexual reproduction in plants

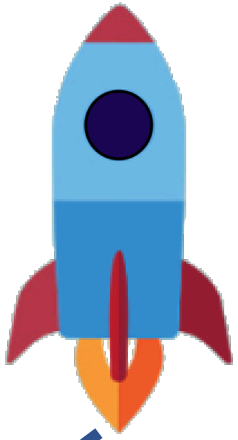
Describe the features of non-vascular plants

Describe the life cycle of a plant

Explore extraordinary plants and fungi

Explore the rainforest and its problems

Scientific Enquiry Covered	Rocket Words Covered	Name of Task / Tasks	Resources Needed	Summative Quiz Questions
Observe closely and present information in a labelled drawing	seed, bulb, germination, shoot, sapling	Describe how seeds and bulbs change during germination	Handout, plastic cups cotton wool seeds (cress, radishes, and peas work very well) magnifying glass (optional)	What is the name of the process when a seed breaks open and begins to grow? Sort these stages of plant growth from youngest to oldest. Plant bulbs have a hard shell. Seeds and bulbs contain a large store of... {{Germination}} is the process when a seed begins to grow. To begin the seed absorbs a lot of {{water}} and begins to swell. Then it cracks open and {{roots}} grow out to anchor it and absorb more water. Next the seed sends up a {{shoot}} to the surface. when it grows above ground it uses its {{leaves}} to photosynthesise.
Use relevant scientific language and illustrations to answer questions	asexual reproduction, runner, clone, eye (potato), parent (plant)	Creating a guide to asexual reproduction	Handout, paper colouring pens/ pencils potato/ strawberry seed packets (optional)	What does asexual reproduction mean? Which of the following are methods of asexual reproduction. Strawberries reproduce by sending out a... Potatoes reproduce through a process called... Plants can be cloned from...
Set up a simple practical enquiry, to observe and compare different types of moss	non-vascular, moss, spores, moist, liverwort	Investigate moss	*Handout* sample pots moss	Which of the following features do non-vascular plants NOT have? Non-vascular plants reproduces using... Which of the following are non-vascular plants? Mosses reproduce using {{spores}}. Male mosses produce {{sperm}}, that swims to the female plant in {{a drop of water}}. At the female plant the sperm fertilise the female plant's {{eggs}}. T/F Non-vascular plants grow bigger than vascular plants.
Present information in a diagram	pollination, fertilisation, germination, dispersal, reproduction	Model the life cycle of a plant	Handouts, paper coloured pens/ pencils presentation software (optional)	What is a life cycle? Put these processes in order starting from when a seed is planted. Which of the following does a plant need to grow? T/F Plants depend on pollinators to reproduce. Plants start life as a seed or bulb which {{germinates}} and beings to grow. The plant sends up a shoot to the surface to {{photosynthesise}}. Eventually the plant grows a flower to help it {{reproduce}}. Insects are often used in{{pollination}} to help the plant move its pollen around.
Gather, record and present data and information in the form of a labelled model	fungi, Venus flytrap, insectivorous, pitcher plant, extraordinary	Venus fly trap model	Handouts, paints (red and green), paper plate, small pieces of paper or stick notes scissors, glue or sticky tape, green paper	What is an insectivorous plant? Which of the following are insectivorous plants? Touching what part of the Venus flytrap causes it to close? Insectivorous plants attract insects using... Mushrooms are a type of...
Report on findings from enquiries, including oral and written explanations	rainforest, biodiversity, deforestation, poaching, pollution	Save the rainforest campaign	Handouts, Optional: books/internet research presentation / film-making software	What is a rainforest? Which of these are problems that the rainforest faces? Which of the following are made from things in the rainforest? The rainforest makes 20% of the world's... T/F The rainforest faces problems, but these can be stopped if people help



Developing Experts™

Year 3 Plant Life Cycles

Name the parts of the flower and describe what they do

Explain how plants make their own food

Describe the life cycle of a plant

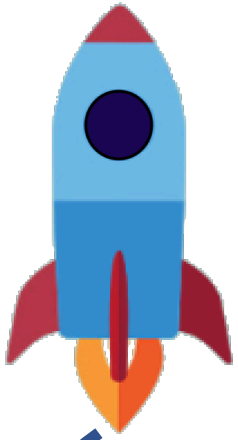
Describe the process of pollination

Describe how plants soak up water

Describe the different ways plants share their seeds

Explain how water and food moves around a plant

Scientific Enquiry Covered	Rocket Words Covered	Name of Task / Tasks	Resources Needed	Summative Quiz Questions
Presenting information in a labelled model or diagram	anther, stigma, petal, style, filament	Build a model flower and label the key parts. Explain what each part is used for.	Handout, Coloured paper, Scissors, Glue, Pipe cleaners, Modelling clay, Flowers	Which part of a plant produces pollen? Sort these flower parts into male and female parts. The sepals protect the flower bud as it is growing. Flowers are used for... Pollen is made on the {{anther}} which is held up by the {{filament}}. The is collected on the {{stigma}} which has a {{sticky}} surface. The {{style}} holds up the stigma. The {{petals}} are used to attract insects to the flower.
Observe and explain findings using scientific language	photosynthesis, chlorophyll, UV light, carbon dioxide, glucose	Let there be Light!	2 potted plants (geranium or basil) magnifying lenses *Handout*	Why do many plants look green? T/F Photosynthesis is important to all life on Earth. Which of the following is needed for the photosynthesis reaction? T/F Plants photosynthesise all the time For the photosynthesis reaction to occur {{water}} travels up the xylem from the {{roots}} to the leaves of the plant. A gas called {{carbon dioxide}} enters the leaves through tiny holes. {{UV light}} from the Sun is trapped by {{chlorophyll}} in plant leaves. The reaction produces {{oxygen}} gas and {{glucose}}.
Present information in a diagram	pollination, fertilisation, germination, dispersal, reproduction	Model the life cycle of a plant	handouts, paper coloured pens/ pencils presentation software (optional)	Put these processes in order starting from when a seed is planted. Plants depend on pollinators to reproduce. Plants start life as a seed or bulb which **Select...** and beings to grow. The plant sends up a shoot to the surface to **Select...** . Eventually the plant grows a flower to help it **Select...** . Insects are often used in **Select...** to help the plant move its pollen around.
Presenting learning and knowledge in a dance or drama	nectar, pollination, pollen, pollinator, waggle dance	Show how pollen is collected	Handout	Which of the following are pollinators? T/F Bees are attracted to a flower's pollen. How do bees collect pollen? How do bees communicate with each other? The process of {{pollination}} is when a {{pollinator}} moves {{pollen}} from one plant to another.
Use scientific equipment to observe and draw roots	root, root hair, absorb, anchor, store	Drawing roots	handouts, onions cocktail sticks glasses magnifying glasses	T/F Roots are always found underground. What jobs do the roots do? T/F Roots grow closely to the plant T/F Root hairs absorb water and minerals from the soil. Sort the images of roots from the others.
Set up a fair test, and gather, record and present data	sycamore, wind dispersal, water dispersal, animal dispersal, explosion dispersal	Seed dispersal investigation	handouts, scissors, paperclips, stopwatch, tape, measure	Which of the following are ways plants disperse their seeds? Sort these seeds into those dispersed using animals and those dispersed using wind. T/F Plants want to keep their seeds near them. Which of the following helps a coconut tree distribute its seeds? Plants are stuck to the same spot all the time so they use different ways to {{disperse}} their seeds. Plants try to get their seeds {{far away}}, to grow into new plants. Seeds can be carried for short distance by being blown {{by the wind}} or long distances by floating {{on the water}} and being carried {{by animals}}.
Observe closely and create a scientific drawing	transpiration, xylem, phloem, vascular, stomata	Examine xylem & phloem	handouts, celery - with leaves glass sharp knife food colouring (red) white flower - daisy (optional)	Where do plants get their water from? T/F More transpiration occurs on windy days. Which of the following are found in all vascular plants? Sort these parts of the plants into the order water travels through them. Water and minerals enters the plant through the {{roots}}. The plant then moves {{minerals}} through the {{phloem}} and water and through the {{xylem}}, these are found in the {{stem}}. Water then exits the plants through the {{leaves}} in a process called {{transpiration}}.



Developing Experts™

Year 3 Animals Including Humans

Understand about the brain

Compare generations of families to help understand how characteristics are inherited

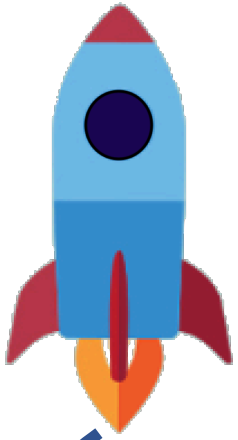
Learn about voluntary and involuntary muscles

Introduction to the skeleton

Know about the skeleton - tendons and ligaments

Explore how skeletons and muscles are used for support, protection and movement

Scientific Enquiry Covered	Rocket Words Covered	Name of Task / Tasks	Resources Needed	Summative Quiz Questions
Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	medulla, cerebrum, cerebral cortex, brain stem, cerebellum	Take the memory challenge and test your brain power!	handouts, *Memory Game, The Egg Drop Challenge*, Eggs (at least 2 per pair) Marker to draw on a face, (waterproof), Plastic container with top , Water (to fill the container, Protective materials such as bubble wrap, greaseproof paper, string, foam etc.	Most higher-level brain activity takes place in the **Select...** of the cerebrum, called the **Select...** . It's full of deep, wiggly grooves. An adult brain weighs 3.16 kilograms. Sort these things into short-term and long-term memories. Which of these processes does your brain participate in? Which part of the brain controls your sense of balance?
Using your observations and ideas to suggest answers to questions	characteristics, resemblance, generation, similarities, Gregor Mendel	It's a dog's life! What might a cross - breed dog look like between these species?	Inheritance Patterns Inheritance Patterns page of the Handout, Pens, It's a Dog's Life It's a Dog's Life page on the Handout Pencils, Crayons	To understand what we inherit, many scientists have conducted **Select...** on plants, animals and other organisms. One such scientist was a monk called **Select...** who investigated inheritance based on **Select...** . We can inherit such things as our looks, life cycles and diseases from our **Select...** . True or False - if two crocodiles bred together, they could make an alligator. *Drag the images into the correct area.* What does to 'inherit' mean in biology? Which of these could you inherit from one of your parents?
Gather, record, classify and present data in a variety of ways to answer questions	involuntary muscles, voluntary muscles, biceps, triceps, hamstring muscle	Voluntary Muscles Test	handouts, *Voluntary Muscles Tests,* Stopwatch *Eyelid Investigation* Stopwatches Cotton wool Plastic sheets Protective goggles	If you write with the opposite hand from usual, why does that hand ache more quickly than if you were writing with your usual hand? True or false: The biggest muscle in the body is called the gluteus maximus, which is the muscle found in your bottom. Which of these are involuntary muscles? It takes {{15}} muscles to make your {{face}} smile. It takes {{40}} muscles to make your {{face frown}}. These are all {{voluntary}} muscles. It takes a lot less effort to {{smile}}! Muscles work in pairs. What happens when they do this?
Report on findings, create a display to present your results	skeleton, bones, skull, X-ray machine, rib cage	Construct and label the human skeleton	Modelling the Skeleton, *Handout* Bright coloured card, Scissors, Glue, Pen Bendy Bones, Jar , Vinegar, Chicken bones	What things does a skeleton do? A Z-ray machine can see through our skins to see what is happening inside our bodies. Which of these interesting facts about bones are true? Complete the statement: You can keep bones {{healthy}} by getting lots of {{Vitamin C}} and Vitamin K. Eat lots of green leafy vegetables, which are the best source of {{calcium}}. Spend some time in the {{Sun}} to get a good amount of Vitamin D. Get lots of {{exercise}}. Which of these are bones?
Use straightforward scientific evidence to answer questions to support your findings	Achilles tendon, cartilage, marrow, ligament, tendon	Create a model of the human hand to show how tendons and ligaments enable movement	Card Straws Beads String Scissors *Handout*	Tendons are strong fibres that attach...what? The largest tendon in your body is called...? Complete the statement: The largest {{tendon}} in the body is called the {{Achilles tendon}}, named after a heroic character in a story from a country called {{Greece}}. He died after being hit by an {{arrow}} in the {{heel}}, which is the part of the {{body}} where this {{tendon}}can be found. True or false: X-ray machines can see through your bones. True or false: Muscles help you move by pulling on your bones.
Use scientific knowledge and language	support, protect, vertebrae, movement, contract and relax	Play a game of Body Bingo to test out your knowledge of the skeleton and muscles	Handout	The main parts of our bodies which are known for protection are our ribcage and **Select...** . The ribcage contains **Select...** pairs of bones and they protect our heart and **Select...** . The skull is vital in protecting our **Select...** . True or False: Our bones couldn't move without muscles. Which of these functions is the spine most important for? Which of these doesn't have a skeleton? Which of these words explain the movement of skeletal muscles?



Developing Experts™

Year 3 Light

Explain how shadows are formed

Describe how light travels

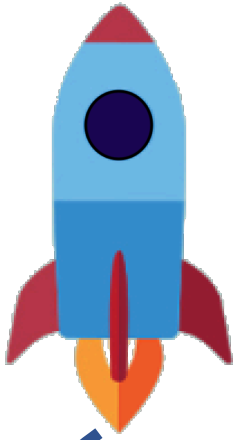
Understand different types of mirrors

Know what a periscope is and how it is used

Explain how reflective surfaces help keep us safe

Recognise that light from the Sun can be dangerous and that there are ways to protect your eyes

Scientific Enquiry Covered	Rocket Words Covered	Name of Task / Tasks	Resources Needed	Summative Quiz Questions
Collecting data and identifying trends	position, intermediate, sundial, clockwise, indirectly	Shadow stick investigation	**Shadow Stick Investigation,** A3 white paper or larger Wooden skewer, toothpicks or weight to hold down the paper, pencil, watch/clock Handout	When you push a light switch, the light comes on very quickly. Why is this? Light travels in a straight line. Is this true or false? What happens if you shine a torch against a wall in a dark room, then put your hand in the beam of light? Find 3 correct answers. Light travels very {{fast}}. Blink your eyes {{3}} times. Light can travel to the {{the Moon}} and back in that time. Which images are of opaque items and which are of transparent items. These words have opposite meanings, let that help you decide which picture goes where.
Ask relevant questions and use different types of scientific enquiries to answer them	transparent, opaque, light, torch, shadow	Make a Shadow Puppet. What questions can you ask and what can you do to explore how to answer your questions?	Lamp Sticky tape Pencils Scissors Lollipop sticks White wall *Handout* printed onto card	When you push a light switch, the light comes on very quickly. Why is this? Light travels in a straight line. Is this true or false? What happens if you shine a torch against a wall in a dark room, then put your hand in the beam of light? Find 3 correct answers. Light travels very {{fast}}. Blink your eyes {{3}} times. Light can travel to the {{the Moon}} and back in that time. Which images are of opaque items and which are of transparent items. These words have opposite meanings, let that help you decide which picture goes where.
Record findings using simple scientific language, drawings, and labelled diagrams	mirror, concave, convex, reflection, telescope	Draw the reflections seen in different types of mirrors	***Reflection Sketching*** flexible plastic mirror *handout page 1*, Pencil, ***Mirror Investigation*** *handout page 2*, mirror pencil & paper, torch *Mission to Write Handout - Mirror Writing*	A plane mirror... Find 3 answers to end this sentence. How would you see the word 'light' if it was reflected in a plane mirror? True or false: A telescope can help you see things that are very small. Choose all the options that are correct. Complete the statement: A concave mirror curves {{inwards}} like a {{spoon}}. A concave mirror makes things look {{smaller}} than they actually are. A convex mirror curves {{outwards}} like a {{ball}}. A convex mirror makes things look {{bigger}} than they actually are.
Record findings using simple scientific language, drawings, and labelled diagrams	periscope, submarine, parallel, viewer, enlarge	Up Periscope! Record findings using simple scientific language, drawings, and labelled diagrams to draw the path light travels through your periscope	*Make a Periscope* Cardboard (or juice cartons) Duct tape Scissors Small mirrors Paints, papers, etc. for decoration. *Handout*	Where are or were periscopes most commonly used? Find 3 answers. True or false: The angle of the mirrors in a periscope is 75º. What type of mirrors are used in a periscope? Which of these can a periscope do? Complete the statement: A mirror reflects {{light}}. Light travels very {{fast}} in a straight line. Light reflecting off the two mirrors in a {{periscope}} allows people to see in {{a different}} direction to the one in which they are looking.
Use straightforward scientific evidence to answer questions or to support your findings	reflective material, road safety, fluorescent, dark, hi-vis	Exploring reflective and non-reflective materials	*handout* foil glue stick clear stick tape card *Mission to Write - Reflective Safety Handout*	Put these steps in order to show how to safely cross the road. What is reflective material? Which of these should you do when you are out and about at night? Find 3 answers. Complete the statement: When you wear a {{reflective}} material at night, the {{headlights}} of a passing car will reflect off the material and make that material {{visible}}. When the driver of the car can see the {{visible}} material, they can see you, too. For safety, {{be seen at night}}. Which of these reflects light, and which do not reflect light?
Setting up simple practical enquiries, comparative and fair tests	ultraviolet rays, calcium, sunglasses, sunburn, sun protection factor	Investigate the effect Sun protection has on UV beads	*UV Investigation* UV beads - that all turn the same colour (4 per group) sun protection - with at least 3 different SPF values black paper sticky tack plate handout	Which is the main vitamin that we get from the Sun? Which things would you choose to use on a sunny day? Which things would you choose to use on a snowy day? What does SPF stand for? Complete the statement: {{Sunglasses}} are important to wear on {{sunny}} days. They protect eyes from the {{ultraviolet}} light from the Sun, which can burn eyes and skin. They also help people {{see}} better in the bright light. If you look into someone's sunglasses you can see yourself looking back. Why is this?



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