<u> Year 3 - Rocks</u>

<u> Year 3 - Rocks</u>

Term - Autumn

N Cu	National Irriculum	Pupils should compo descri recogn	d be taught to: are and group together differ be in simple terms how fossi hise that soils are made from	rent kinds of rocks on the basis of ils are formed when things that ha n rocks and organic matter.	their appearance and simple physical ve lived are trapped within rock	properties	
	National	Curriculum	Key Learning	Activities	Working Scientifically	Key Vocabulary	Exit Question
1	Compare diffe rocks based o appearance	erent kinds of n their	Children will be able to compare different types of rocks.	- Children to sort rocks depending on whether they are man-made or natural	Identifying, Grouping and Classifying Sort rocks depending on whether they are man-made or natural	Rocks, igneous, sedimentary, metamorphic, form, formation, volcano, sea, seabed, changes, compare, types, natural, human-made, strata, anthropic.	Name one type of man-made rock
2	Group togeth kinds of rocks their simple p properties	er different on the basis of hysical	Children will be able to group rocks based on their properties.	 Children to use adjectives to describe rocks Children to test the permeability, durability and density of different rocks Children to group rocks based on their properties 	Identifying, Grouping and Classifying Group rocks based on their properties	Igneous, sedimentary, metamorphic, rocks, group, properties, permeable, impermeable, hard, soft, durable, buoyancy, split.	Permeability is: How soft a material is How much water a material lets through How much light a material lets through
3	Describe in sin how fossils ar things that ha trapped withi	mple terms re formed when rve lived are in rock	Children will be able to explain how fossils are formed.	 Children to order the fossilisation process Children to write a caption for each stage of the process *Could make fossils using playdough if time but need to have captions* 	Identifying, Grouping and Classifying Children will identify what's happening at the different stages of fossilisation	Fossil, sedimentary, fossilisation, animals, bones, chemical fossils, change, body fossils, trace fossils, layers, pressure, coprolite, trackways, footprints.	Why do you think we have fossils for some animals and not others?
4			Children will be able to explain Mary Anning's contribution to palaeontology.	 Children to answer comprehension questions about Mary Anning *English lesson* 	Research Children will research the work of Mary Anning	Mary Anning, fossils, ichthyosaur, trace fossils, coprolite, dinosaurs, Jurassic, Lyme Regis, seaside, beach, poverty, scientists,	What is the job of a palaeontologist?

			*If time, children create a film		William Buckland	
			recreating Mary Anning's tamous			1
			ichthyosaur fossil find*			1
			, , , , , , , , , , , , , , , , , , , ,			
	Recognise that soils are	Children will be able to	- Create their own compost bin		Soil, formation, formed, rock,	Name the layers of soil
	made from rocks and	explain how soil is formed.	- Draw a diagram to show the		organic	1
			formation of soil.		matter, animals, top soil, sub	1
5	organic matter				soil,	
					bedrock, additions, losses,	1
					translocations,	1
					transformations.	
		Children will be able to	- Investigate soil permeability	Comparative Testing	Soil, formation, rock, rock	Which soil was the
		observe how much water	- Present their findings	Children will investigate and compare	type, igneous,	most permeable?
		has filtered through		the permeability of different soils	sedimentary, metamorphic,	
6		different types of soil			properties,	1
		different types of soil.			permeability, permeable,	1
					impermeable,	1
					semi-permeable.	
	Assessment		-			
						-

<u> Year 3 - Rocks</u>

Year 3 - Animals including Humans

Term - Autumn

National Curriculum		Pupils should	d be taught to:							
		 identi they identi 	 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. 							
	National	Curriculum	Key Learning	Activities	Working Scientifically	Key Vocabulary	Exit Question			
1	Identify that including hum right types a nutrition, and cannot make food; they g from what th	t animals, lans, need the and amount of d that they their own et nutrition ney eat	Children will need to be able to sort foods into food groups and find out about the nutrients that different foods provide	 Sort foods into groups Compare meals by identifying the food groups and listing the nutrients it provides 	Identifying, grouping and classifying Identify the food group different foods belong to Sort foods into the correct food group	Food groups, nutrients, nutrition, nutritious, carbohydrates, proteins, fats, water, fibre, vitamins, minerals, sugars, Eatwell Guide, healthy, survive.	Show a picture of a snack- healthy or unhealthy? Why?			
2	Identify that including hum right types a nutrition, and cannot make food; they g from what th	t animals, lans, need the ind amount of d that they their own et nutrition ney eat	Children will need to be able to explore the nutritional values of different foods by gathering information from food labels	 Predict then order the foods that contain the most and least saturated fat Investigate statements to decide if they are true or false Ext- can they find evidence from food labels to prove/disprove statements 	Research Can they find evidence from food labels to prove/disprove statements	Food groups, nutrients, nutrition, nutritious, carbohydrates, proteins, fats, water, fibre, vitamins, minerals, sugars, Eatwell Guide, healthy, survive, omnivore, carnivore, herbivore, saturated fats, unsaturated fats, sugar, salt, food labels.	What is saturated fat? Which food had the most?			
3	Identify that some other a skeletons and support, prot movement.	t humans and inimals have d muscles for rection and	Children will need to be able to sort animal skeletons into groups, discussing patters and similarities and differences	 Sort animals into vertebrates and invertebrates Sort animals into further skeleton groups. List advantages and disadvantages of different types of skeletons 	Identifying, grouping and classifying Sorting animals into skeleton groups	Vertebrates, invertebrates, skeleton, exoskeleton, endoskeleton, hydrostatic skeleton, protection, support, movement, bones, advantages, disadvantages.	Name 2 animals with exoskeletons			

4	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	Children will need to be able to investigate an idea about how the human skeleton supports movement	 Can people with longer femurs jump further? Investigation, prediction, results, conclusion 	Comparative testing Can people with longer femurs jump further?	Skeleton, protection, support, movement, bones, skull, clavicle, scapula, ribcage, vertebral column, humerus, ulna, radius, femur, tibia, fibula	What was the result of your investigation?
5	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	Children will need to be able to explain how bones and muscles work together to create movement	 Make a model of the muscles working in the arm Describe how their model works and what it is showing Draw and label their model 	Identifying, grouping and classifying Identify the parts of the body their models relate to.	Muscles, movement, skeletal muscles, voluntary muscles, involuntary muscles, tendons, joints, biceps, triceps, contract, shorten, relax, lengthen, humerus, radius, ulna, bones, skeleton, scientific model.	Which muscle contracts and which relaxes?
6	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	Children will need to be able to design and carry out their own investigation	 Children to come up with a question to investigate and then design and carry out their own investigation involving the human skeleton 	Comparative testing Children to come up with a question to investigate and then design and carry out their own investigation involving the human skeleton	joints humerus, ulna, radius, femur, tibia, fibula, skeleton.	What were the results of your investigation?
	Assessment		-			

<u> Year 3 - Light</u>

t Ci	National urriculum Burriculum Pupils should l Recogni Recogni Recogni Find pa	be taught to: se that they need light in a that light is reflected from se that light from the sun se that shadows are forme tterns in the way that the	order to see things and that dark is n surfaces. can be dangerous and that there are d when the light from a light source size of shadows change.	the absence of light. e ways to protect their eye is blocked by an opaque ob	s. nject.	
	National Curriculum	Key Learning	Activities	Working Scientifically	Key Vocabulary	Exit Question
1	Recognise that they need light in order to see things and that dark is the absence of light.	Children will be able to explain why we need light to see things, and that dark is the absence of light.	 Identify light sources in the room Classify objects as light sources or not Discuss- what is dark? Feely bag activity- 1- dark/ 2-with light 	Identifying, Grouping and Classifying Identify light sources Group objects as light sources or not	Light Source Dark Illuminate* Visible*	Name 3 light sources
2	Notice that light is reflected from surfaces.	Children will learn how to test which surfaces reflect light and make predictions about the most reflective materials.	 Discuss why reflective materials are helpful Identify colours that are most reflective Design a reflective book bag Test materials to see which is most reflective 	Comparative Testing Test materials to see which is most reflective	Light Source Dark Reflect	Name a time when reflective materials keep people safe
3	Notice that light is reflected from surfaces.	Children will be able to use a mirror to reflect light and explain how mirrors work.	 Explore using a mirror to reflect light onto an object Reflect a message using a mirror Follow a wavy line whilst using a mirror 		Reflect Mirror Smooth Shiny Rays Reverse	Draw a diagram to explain how mirrors work
4	Recognise that light from the sun can be dangerous and that there are ways to protect	Children will be able to explain the dangers of the	 Test the effect of UV on paper Create a poster for sun safety including keeping eyes and skin safe. 	Research	Sun Dangerous UV Glare	Why is wearing a sun cap a good idea in the sun?

	their eyes.	sun and describe ways to protect our eyes.		Use the internet to research ways in which we can keep safe in the sun	Damage Protect	
5	Recognise that shadows are formed when the light from a light source is blocked by an opaque object.	Children will investigate and classify materials according to whether they are opaque, transparent or translucent.	 Plan and conduct an investigation to test different materials to see how well they block out light. Decide which material would be best for black out curtains. 	Identifying, Grouping and Classifying Identify objects that are opaque, transparent and translucent	Beam Ray Travel Opaque Translucent Transparent Block Shadow	Name one object that is opaque and one that is transparent
6	Find patterns in the way that the size of shadows change.	Children will plan an investigation about how shadows change size and draw simple conclusions.	 Plan and investigate shadows and the distance between the light source and the object. Explore the pattern that their results show 	Pattern Seeking Identify patterns when investigating how shadows change size	Shadow Source Opaque Distance Pattern	Describe the conclusions you have come to
	Assessment		-			

	Year	3 -	Rocks
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<u>Year 3 - Plants</u>

Term - Spring

National		Pupils should	d be tauaht to:				
Curriculum		 identi explo plant investi explo 	ify and describe the func re the requirements of pl tigate the way in which w re the part that flowers	tions of different parts of flow ants for life and growth (air, l ater is transported within plan play in the life cycle of flower	wering plants: roots, stem/trunk, leaves and f ight, water, nutrients from soil, and room to ts ing plants, including pollination, seed formatio	lowers grow) and how they n and seed dispersa	v vary from plant to I.
	National Curriculum Key Learning		Key Learning	Activities	Working Scientifically	Key Vocabulary	Exit Question
1	Identify and the function different po flowering plo stem/trunk, flowers	d describe as of arts of ants: roots, leaves and	Children will be able to name the different parts of flowering plants and explain their jobs.	 Label a plant with the names of its parts Label the parts of a plant with their function 	Identifying, classifying and grouping Name plants and identify parts of a plant, along with their functions. Researching Use sources to find out about parts of a plant and their functions to then create a leaflet about each part.	roots, stem, trunk, leaves, flowers, anchor, nutrients, transport, seeds, carbon dioxide, sunlight, absorb.	Which part do you think is the most important? Why?
2	Explore the requirement for life and light, water from soil, a grow)	s of plants growth (air, , nutrients nd room to	Children will be able to set up an investigation to find out what plants need to grow well.	- Design, plan and set their own investigation to explore what plants need to grow, predicting what might happen.	Observing over time Observe the growth of a plant when it has been placed in certain conditions. Comparative and fair testing Carry out a fair test looking at several plants of the same type and how much they grow in comparison to how much water they are given.	air, light, water, nutrients, soil, investigate, explore, predict, observe.	Prediction of the exp.

				Conduct a comparative test comparing the growth		
				of different types of plants when put under the		
				of all feren types of plants when put under the		
				same conditions.		
	*To record findings using simple scientific	Children will be able to record their observations. Children will be able to	 Describe and record what they observed last week Answer their question based on finding 	Observing over time Observe the growth of a plant when it has been	observation prediction conclusion	
3	language, drawings,	gs, present the results of	- Plan and perform in a television	placed in certain conditions.		
	labelled diagrams,	their investigation using	programme on how to grow			
		scientific language.	healthy plants using scientific			
	keys, bar charts and		language			
	tables*					
	Investigate the way in which water is	Children will be able to investigate how water is	- Sort the predictions into those they agree with and those they	Observing over time	transport, stem, evaporate,	Which parts of the plant are involved in water transportation?
	transported within	Transported in plants.	- Plan and set up a comparative	in planta	temperature	
	plants		investigation to learn how water	in plants.	leaves, flower,	
4			is transported in a plant and	Comparative and fair testing	observe,	
			stem.	Carry out a fair test exploring how the length of a	conclusion.	
			- Observe changes throughout	carnation stem or celery affects the time it takes		
			the day	water (and food colouring) to travel to the top.		
				、 <i>、</i>		
	Explore the part that	Children will be able to	- Dissect a flower and identify	Identifying	Petals, sepal,	Which of these is not a
	flowers play in the life	name the different parts	The parts - Identify the functions of the	Identify and name parts of a flower	stamen, anther, filament	part of the flower: petals, stamen, kidney.
	cycle of flowering	of a flower and explain	parts	racinity and hance parts of a flower.	stigma, style,	anther, stigma
	plants, including	fertilisation.	- Describe the process of	Researching	ovary, ovule,	
	pollination, seed		poilination and tertilization	Lise sources to find out about pollingtion and	pollen tube, pollen pollination	
5	formation and seed			avalating the process	fertilisation.	
	dispersal.			capitan me process.		
				Use sources to learn about the different parts of		
				a flower and the function of each part		

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	Explore the part that	Children will be able to	- Act out a method of dispersal-	Identifying	Dispersal,	What comes next after
6	flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	order the stages of the life cycle of a flowering plant.	photos and caption in books - Order the stages of the life cycle and identify what is happening in each stage	Identify the correct parts of a flower to order the life cycle of a flowering plant. Researching Use sources to learn about the life cycle of a flowering plant	pollination, fertilisation, germination,	pollination in the life cycle?
	Assessment		-			

<u>Year 3 - Forces and Magnets</u>

Term - Summer

► Cı	Jational Pup Irriculum National Curr	ipils should compare notice observ compare descril predic riculum	t be taught to: re how things move on differ that some forces need cont re how magnets attract or re re and group together a vari be magnets as having two po t whether two magnets will o Key Learning	rent surfaces act between two objects, but mag epel each other and attract some r iety of everyday materials on the l les <u>attract or repel each other, depen</u> Activities	netic forces can act at a distance naterials and not others basis of whether they are attracted to a magnet, o ding on which poles are facing. Working Scientifically	and identify some mag Key Vocabulary	netic materials Exit Question
1	To notice that so forces need cont between two obj	some itact jects	Children will be able to identify the forces acting on objects	 Freeze frames of an action to show a pushing or pulling force Identify the forces acting on the objects in pictures 	Identifying , Grouping and Classifying Identify the forces acting on the objects in pictures	Force, push, pull.	Show me an action with a pull force/ push force
2	To compare how move on differer surfaces	/ things :nt	Children will be able to investigate the effects of friction on different surfaces	- Friction investigation with prediction, results and conclusion	Identifying, Grouping and Classifying Identify the forces acting on the objects in pictures	Force, push, pull, friction, surface.	What did your results show?
3	To notice that m forces can act a a distance and a some materials o	magnetic at attract and	Children will be able to sort magnetic and non- magnetic materials	- Use magnets to sort through a pile of mixed materials into magnetic and non-magnetic materials	Identifying, Grouping and Classifying Sort magnetic and non-magnetic materials	Force, magnet, magnetic, attract, magnetic field.	Name a magnetic and a non-magnetic material

To compare and group materials according to whether they are magnetic or not Children will be able to - Magnet strength investigation **Comparative Testing** Magnet, attract, What did your results To observe how magnets show? with results, graph and force. investigate the strength attract or repel conclusion Testing and comparing the strengths of different of magnets 4 magnets each other and attract some materials and not others Children will be able to Identifying, Grouping and Classifying To describe magnets as - Make a magnetic compass Magnet, pole, How does a compass Use their compass to find north, south, work? explore magnetic poles having two poles and to 'treasure' hidden in the attract, repel, Identify the poles of a magnet predict whether two playground compass, magnets will attract or direction. 5 repel each other, depending on which poles are facing - Design and make a magnetic Identifying, Grouping and Classifying Children will be able to How have you used To observe how magnets Force, magnet, magnets in your explain that magnets game attract. attract or repel each Identify materials that are attracted to magnets game? attract some materials 6 other and attract some materials and not others Assessment

not others