





















Year group: Y2 – Autumn 1		Subject Area: Science		Unit: Everyday Materials		Subject Leader: K.Beetham	
Prior linked knowledge		National curriculum objectives				Future linked knowledge	
Y1 <ul style="list-style-type: none"> • 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. 		<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. • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. 				Y3 <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 (magnets) • Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties (rocks) 	
Common misconceptions		Cross-curricular links				Possible hooks/enrichment activities	
Solid is another word for hard Rock is an object not material		DT				A broken buddy bench.	
Lesson Sequence							
Identify, classify and sort 	Identify, classify and sort 	Observation overtime 	Problem solve 	Pattern seek 	Problem solve 	Research 	
Lesson 1 <i>How can I sort the materials?</i> To know that materials can be grouped by their properties.	Lesson 2 <i>What is my classroom made of?</i> To know that materials can be used for more than one thing.	Lesson 3 <i>How long does slime take to shrink back after stretching it?</i> To know that materials can change shape by applying force.	Lesson 4 <i>How can I fix the buddy bench?</i> To know that some materials are suitable for particular uses.	Lesson 5 <i>Does more water make my sand castle stronger?</i> To know that variables can impact the strength of materials.	Lesson 6 <i>What material would be best for a phone case?</i> To identify the suitability of materials.	Lesson 7 <i>Who is John Dunlop?</i> To know the impact that significant scientists have had on everyday materials.	
Key skills taught							
Lesson 1 Identifying and classifying	Lesson 2 Identifying and classifying	Lesson 3 Performing simple tests	Lesson 4 Using their observations and	Lesson 5 Performing simple tests	Lesson 6 Using their observations and	Lesson 7 Gathering and recording data to	

			ideas to suggest answers to questions		ideas to suggest answers to questions	help in answering questions.
Key vocabulary						
Lesson 1 Materials Wood Plastic Paper Cardboard Metal Glass Rock Properties Hard Soft Shiny Strong Fragile Dull Rough	Lesson 2 Vocabulary from lesson 1 in addition to: Objects Table IWB Keyboard Pencil Book Made of	Lesson 3 Slime Sponge Rock Playdough Bend Stretch Twist Squash Force	Lesson 4 Fragile Strong Appropriate Wood Plastic Paper Car	Lesson 5 Strength Solid Hard	Lesson 6 Vocabulary from lesson 1 in addition to: Appropriate Suitable	Lesson 7 John Dunlop Materials Tyre Inflatable Rubber
Resources						
Lesson 1 Sorting hoops Wood Plastic Paper Cardboard Metal Glass Rock	Lesson 2 Classroom objects Sorting hoops	Lesson 3 Slime Sponge Rock Playdough Stopwatch	Lesson 4 Cardboard Paper Wood Plastic Images of broken bench	Lesson 5 Sand Water Bucket Measuring jug	Lesson 6 Wood Plastic Paper Cardboard Metal Glass Rock	Lesson 7 Internet access/textbooks

Year group: Y2 – Autumn 2		Subject Area: Science		Unit: Animals, inc humans		Subject Leader: K.Beetham	
Prior linked knowledge		National curriculum objectives				Future linked knowledge	
<u>Y1</u> <ul style="list-style-type: none"> • 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 Science 149 Statutory requirements • Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense 		<ul style="list-style-type: none"> • 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) • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. 				<u>Y3</u> <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 • Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	
Common misconceptions		Cross-curricular links				Possible hooks/enrichment activities	
Diet is something to lose weight All animals in the sea are fish and have gills		JIGSAW – needs and wants				Visit baby animals at the farm Parents bring in any baby pets at the end of the school day.	
Lesson Sequence							
Identify, classify and group 	Observation overtime 	Research 	Comparative testing 	Oservation overtime 	Problem solving 		
Lesson 1 <i>Where is my mammy?</i> To know that animals have offspring.	Lesson 2 <i>Have I changed?</i> To know that offspring grow into adults.	Lesson 3 <i>What's in my emergency backpack?</i> To know that animals including humans have basic needs.	Lesson 4 <i>How does my heartbeat change after exercise?</i> To describe the importance of exercise.	Lesson 5 <i>What happens if I don't wash my hands?</i> To know the importance of good hygiene.	Lesson 6 <i>What foods should we have at the Christmas party?</i> To know the importance of eating the right amounts of different food.		
Key skills taught							
Lesson 1 Identifying and classifying	Lesson 2 Using their observations and ideas to suggest answers to questions	Lesson 3 Gathering and recording data to help in answering questions.	Lesson 4 Performing simple tests	Lesson 5 Observing closely, using simple equipment	Lesson 6 Gathering and recording data to help in answering questions.		

Key vocabulary					
Lesson 1 Offspring Baby Parent Reproduction A range of baby animal names (calf, piglet etc)	Lesson 2 Growth Baby Child Adult Change Develop	Lesson 3 Needs/wants Basic needs Water Exercise Food Air	Lesson 4 Healthy Heart rate Exercise Health Pumps blood Important	Lesson 5 Hygiene Wash Bacteria Disease	Lesson 6 Diet Food Nutrition Food types (meat, fish, vegetables, rice, bread etc)
Resources					
Lesson 1 Images/videos Actual animals for a workshop	Lesson 2 Images/video	Lesson 3 Backpack template	Lesson 4 Digital timer – IWB	Lesson 5 Bread x2 Soap	Lesson 6 Party plates Pens Asda click and collect

Year group: Y2 – Spring Term	Subject Area: Science	Unit: Plants	Subject Leader: K.Beetham
Prior linked knowledge	National curriculum objectives		Future linked knowledge
Y1 <ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 		Y3 <ul style="list-style-type: none"> 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 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.
Common misconceptions	Cross-curricular links		Possible hooks/enrichment activities
<ul style="list-style-type: none"> Plants are not alive because they don't move. Seeds are dead. Plants need light to grow. 	JIGSAW – basic needs		Visit from a farmer/trip to a crop farm

Lesson Sequence						
Identify, classify and group 	Observation overtime 	Comparative testing 	Observation overtime 	Pattern seeking 	Comparative testing 	Research 
Lesson 1 <i>Is it a seed or a bulb?</i> To observe and describe bulbs and seeds.	Lesson 2 + 3 <i>How do seeds and bulbs change?</i> To observe and describe how seeds and bulbs grow into mature plants.	Lesson 4 <i>Can a plant grow without water and light?</i> To know that a plant needs water and light to grow and stay healthy.	Lesson 5 <i>How long does a germinated seedling take to move towards the light source?</i> To know that a plant needs light to stay healthy.	Lesson 6 <i>Does light impact how tall a plant grows?</i> To know that a plant needs light to stay healthy.	Lesson 7 <i>Which temperature is best for a plant to grow after it has germinated?</i> To know that plants need a suitable temperature to grow and stay healthy.	Lesson 8 <i>How do farmers grow plants over the 4 seasons?</i> To know that plants need water, light and a suitable temperature to grow and stay healthy.
Key skills taught						
Lesson 1 Identify, classify and group	Lesson 2 + 3 Observing closely	Lesson 4 Gathering and recording data to help in answering questions	Lesson 5 Observing closely, using simple equipment	Lesson 6 Set up and performing simple tests	Lesson 7 Set up and performing simple tests using simple equipment	Lesson 8 Using their observations and ideas to suggest answers to questions
Key vocabulary						
Lesson 1 Seed Bulb Plant Soil Shape Size Colour Group	Lesson 2 + 3 Seed Bulb Plant Germinate Grow Stem Leaves Flower Roots	Lesson 4 Vocabulary from lessons 2 + 3 in addition to: Healthy	Lesson 5 Vocabulary from lessons 2-4.	Lesson 6 Vocabulary from lessons 2-4 in addition to: Measure Tall Compare Cm	Lesson 7 Vocabulary from lessons 2-4 in addition to: Thermometer Degrees celsius	Lesson 8 Farm Crops Greenhouse
Resources						
Lesson 1 Seeds Bulbs Sorting hoops	Lesson 2 + 3 Soil Shovel Sunflower seeds	Lesson 4 Cress seeds Plant pots Soil	Lesson 5 Cotton wool Germinated seeds Light source	Lesson 6 3 plants Direct light Slight light	Lesson 7 2 plants Indoors space Outdoor space	Lesson 8 Ipad/textbook/internet









	Cups Watering can iPads	Watering can Cupboard	Stop start animation on ipads	Darkness (cupboard) Ruler	Thermometer	
--	-------------------------------	--------------------------	----------------------------------	------------------------------	-------------	--

Year group: Y2 – Summer Term	Subject Area: Science	Unit: Living things in their habitats	Subject Leader: K.Beetham
-------------------------------------	------------------------------	--	----------------------------------

Prior linked knowledge	National curriculum objectives	Future linked knowledge
<u>EYFS</u> <ul style="list-style-type: none"> • Developing an understanding of growth, decay and changes over time • Shows care and concern for living things and the environment • Knows about similarities and differences in relation to places, objects, materials and living things • Talks about the features of their own immediate environment and how environments might vary from one another • Makes observations of animals and plants and explains why some things occur, and talks about changes 	<ul style="list-style-type: none"> • Explore and compare the differences between things that are living, dead, and things that have never been alive • 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 • Identify and name a variety of plants and animals in their habitats, including microhabitats • 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. 	<u>Y4</u> <ul style="list-style-type: none"> • 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 • Recognise that environments can change and that this can sometimes pose dangers to living things.

Common misconceptions	Cross-curricular links	Possible hooks/enrichment activities
Plants and seeds are not alive because they don't move. Fire is alive. Wooden objects have never lived.	Maths – pictograms Geography – locations	Trip to beach for rock pooling

Lesson Sequence

Identify, group and classify 	Identify, group and classify 	Identify, group and classify 	Research 	Research 	Comparative testing 	Problem solve 	Research 
Lesson 1 <i>Which things are living, dead and have never lived?</i> To know the differences	Lesson 2 <i>Are there any habitats in school?</i> To know that most living things live in a habitat.	Lesson 3 <i>Where does it live?</i> To know variety of plant and animals in their habitats.	Lesson 4 <i>Why are habitats important? What is a microhabitat?</i> To know that living things and	Lesson 5 <i>How can a cactus survive?</i> To know that habitats are suited to the living thing	Lesson 6 <i>Are there more living things in microhabitats in the school grounds or at the beach?</i>	Lesson 7 <i>Can you create a habitat for a new creature?</i> To know that living things live in	Lesson 8 <i>What is a food chain?</i> To know that animals obtain their food from plants and

between things that are living, dead and have never been alive.			habitats depend on each other. To know what microhabitats are.	and provide a basic need for animals and plants.	To name a variety of microhabitats.	a habitat that they are suited to and that provides basic needs.	animals. To name a simple food chain. To identify the sources of food.
Key skills taught							
Lesson 1 Identify and classify, making comparisons.	Lesson 2 Identify and classify, making comparisons.	Lesson 3 Ask simple questions and recognise that they can be answered in different ways.	Lesson 4 Ask simple questions and recognise that they can be answered in different ways.	Lesson 5 Gather and record data to answer questions.	Lesson 6 Perform simple tests. Use pictograms and block diagrams to record data.	Lesson 7 Using their observations and ideas to suggest answers to simple questions.	Lesson 8 Using their observations and ideas to suggest answers to simple questions.
Key vocabulary taught							
Lesson 1 Living Dead Alive	Lesson 2 Vocabulary covered in lesson 1 in addition to: Habitat	Lesson 3 Habitats Forest, ocean, flowerbed, desert, meadow, seashore, soil, cave etc	Lesson 4 Vocabulary taught in lessons 1-3 in addition to: Microhabitat Leaf, log, under stone etc Depend	Lesson 5 Vocabulary taught in lessons 1-4 in addition to: Suitable Appropriate Basic needs Survive Shelter Protection Food and water	Lesson 6 Vocabulary taught in lessons 1-5 in addition to: Contrast Beach Rock pool	Lesson 7 Vocabulary previously taught.	Lesson 8 Food chain Food source
Resources							
Lesson 1 Things collected from outside. Sorting hoops.	Lesson 2 School field. Minibeast collecting pots.	Lesson 3 Printed names of common habitats. Living things to sort into those habitats (plants and animals).	Lesson 4 Books/iPads/computers	Lesson 5 Books/iPads/computers	Lesson 6 Tally charts Pictogram	Lesson 7 Clay/playdough A range of natural objects e.g. leaves/rocks/shelter etc.	Lesson 8 Animal pictures