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1	SEASONAL CHANGES Observe weather and changes over seasons.	ANIMALS INCLUDING HUMANS Name common animals.	SEASONAL CHANGES Observe weather and changes over seasons.	PLANTS Name basic parts – identify common plants. How many plants do you know?	SEASONAL CHANGES Observe weather and changes over seasons.	EVERYDAY MATERIALS Name, describe and sort everyday materials.
SCIENTIFIC ENQUIRY	Are leaves always green?  How many hours of sunlight are there in one day?  What clothes do you need?	What is a carnivore, herbivore and omnivore?  Do all bigger animals eat smaller animals to survive?	Are leaves always green?  How many hours of sunlight are there in one day?  What clothes do you need?	Are all leaves the same?  How fast will sunflower seeds start to grow?  Is there a place on the field where daisies grow the most? 	Are leaves always green?  How many hours of sunlight are there in one day?  What clothes do you need?	Materials hunt: Can you find things made of wood? Can you find things made of metal?  Little Teddy keeps getting wet – can you help him?  
WORKING SCIENTIFICALLY SKILLS KS1	Asking questions, Observing and Measuring, Using books, photos and the Internet to find answers, Recording information, Looking for patterns – sorting and grouping, Performing simple tests and using equipment, Saying why a test is unfair, Explaining results and what we have found out.					
LITERACY LINKS	Write a list of clothes needed for Autumn	Explain what a carnivore, omnivore and herbivore is Explain what the five senses do	Write a list of clothes needed for Spring	Write a diary of a sunflower	Write a list of clothes needed for Summer	Read The Jolly Postman Write a letter/postcard to little teddy
MATHS LINKS	Use a simple table to record results Venn diagram	Venn diagrams	Use a simple table to record results Venn diagram	Count the number of daisies, time how long, measure the height of plants	Count hours, Use a simple table to record results Venn diagram	Use a Tally chart
STEM LINKS	Make a washing line of Autumn clothes	Animal survey of the school grounds	Make a washing line of Spring clothes	Sunflower growing competition	Make a washing line of Summer clothes	Design and make teddy an outfit for the rain explaining why you chose the materials
	LIVING THINGS AND	ANIMALS INCLUDING	USES OF EVERYDAY	PLANTS	ANIMALS INCLUDING	AWE AND WONDER

2	THEIR HABITATS Living and dead, describe habitats, basic food chains	HUMANS (1) Why is exercise and food hygiene important?	MATERIALS Can a material change shape?	Seeds/Bulbs grow into plants. What do plants need to survive?	HUMANS (2) Animals have offspring. What does an animal need to survive?	Recycling – Why do we need to recycle? (Link to materials topic)
SCIENTIFIC ENQUIRY	Where do most woodlice live? Why are some animals from different countries?   	How do germs spread? Dirty Bertie thinks it's OK to be dirty – what do you think?  	What material is best for...? What material should the 3 little pigs use to build their house? What material would make a good thermal blanket?  	Will plants survive without water? How long does a daffodil/tulip bulb take to grow? How long will it last?  	How does a caterpillar change into a butterfly? Do all animals look like their offspring? 	What materials can we recycle? How are materials recycled?  
WORKING SCIENTIFICALLY SKILLS KS1	Asking questions, Observing and Measuring, Using books, photos and the Internet to find answers, Recording information, Looking for patterns – sorting and grouping, Performing simple tests and using equipment, Saying why a test is unfair, Explaining results and what we have found out.					
LITERACY LINKS	Create a poster advertising the perfect habitat for a creature of your choice to live	Read Dirty Bertie Explain why food hygiene is important	Write a letter to the 3 little pigs explaining what material they should use to build their house	Instructions on how to grow a daffodil/tulip and explaining what it needs to survive Write a bulb diary	Explain the different stages of a butterfly life cycle Explain what all animals need to survive	Write a persuasive poster urging people to protect the environment by recycling
MATHS LINKS	Tally chart	Count how many children the 'germs' spread to	Measuring using non-standard units	Measure the growth of a bulb	Measure a caterpillar and record its growth, Count how many days it takes to metamorphosise	A simple table to record results of what materials are recycled
STEM LINKS	Make peg/cup animals to show food chains	Use glitter/Glo-gel to show germs spreading	Beat the Flood!	Make a collage using recycled materials to create different plants and explain the function of each part.	Watch a caterpillar metamorphasize in the classroom	Visit the local recycling centre
	ROCKS	ANIMALS INCLUDING	FORCES	PLANTS	LIGHT	ANIMALS INCLUDING

3	Group different rocks, explain how they are formed. Fossils.	HUMANS (1) Skeletons and muscles.	Compare different surfaces. Magnets.	Life cycle of a plant Functions of a plant.	How are shadows formed (size)? Can you make a coloured shadow?	HUMANS (2) Need for the right amount of nutrition: Making bread.
SCIENTIFIC ENQUIRY	<p>What's the hardest rock?</p> <p>Are all rocks waterproof?</p> <p>Are all rocks hard?</p> <p>Are rocks made from sand?</p>   	<p>How important are bones and muscles?</p> <p>Do all animals have a skeleton?</p> <p>How do animals move?</p> <p>What is a skeleton for?</p>   	<p>Are all materials magnetic?</p> <p>What uses do magnets have?</p> <p>Do magnets have different strengths?</p>   	<p>How is a cactus plant different to other plants?</p> <p>How do different seeds grow?</p> <p>How is water transported in a plant?</p>   	<p>Why do we wear sunglasses?</p> <p>How can you make a big/small shadow?</p> <p>Does a shadow change throughout the day?</p>  	<p>How is bread made?</p> <p>What do we need to be healthy?</p> <p>How can astronauts have a healthy diet?</p>  
WORKING SCIENTIFICALLY LKS2	Asking questions and using different types of scientific enquiries, setting up simple practical enquiries, comparative and fair tests, making systematic and careful observations, taking accurate measurements, using a range of equipment, including thermometers and data loggers, gathering, recording, classifying and presenting data in a variety of ways, recording findings using drawings, labelled diagrams, keys, bar charts, and tables, reporting on findings, 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, identifying differences, similarities or changes related to simple scientific ideas and processes, using straightforward scientific evidence to answer questions or to support their findings.					
LITERACY LINKS	Read 'The Street Beneath My Feet' by Charlotte Guillain, Yuval Zommer	Read a biography of Mary Anning Write a story about what life would be like without a skeleton	Write a poem based on magnets using scientific language	Describe how water is transported in a plant	Read 'My Shadow' by Robert Louis Stephenson	Creating recipes
MATHS LINKS	Use a table to record results	Measuring using standard units	Use a table to record results Use graphs to present results	Graph showing the length of roots over time.	Measuring shadows	Measuring amounts for recipes
STEM LINKS	Make a sedimentary rocks model out of sweets	Investigate how long it takes to jump for a kilometre.	Make a magnet game explaining how it works	Explore plant pollination through dissecting a flower.	Make a sundial	Making bread
	ELECTRICITY Simple circuits, switches, conductors,	ANIMALS INCLUDING HUMANS (1) Food chains.	SOUND Pitch and volume. How is sound made?	ANIMALS INCLUDING HUMANS (2) Digestion system.	LIVING THINGS AND THEIR HABITATS Group living things,	STATES OF MATTER Solids, liquids and gases. Changing states.

4	insulators.			Teeth.	use classification keys. How does a changing environment threaten life?	Evaporation and condensation.
SCIENTIFIC ENQUIRY	Do all metals conduct electricity? How do you light up a bulb? Can I light up a home?   	How do food chains differ around the world?   	Do larger instruments produce a louder sound or a lower pitch sound? Can you measure how loud a sound is?  	How is poo made? What kinds of things are good/bad for teeth?  	What fruits would grow if you planted them? Why? Should we be worried about the amount of plastic we throw away?  	What effect does salt/sugar/warm water have on the melting process? Where do clouds come from?   
WORKING SCIENTIFICALLY LKS2	Asking questions and using different types of scientific enquiries, setting up simple practical enquiries, comparative and fair tests, making systematic and careful observations, taking accurate measurements, using a range of equipment, including thermometers and data loggers, gathering, recording, classifying and presenting data in a variety of ways, recording findings using drawings, labelled diagrams, keys, bar charts, and tables, reporting on findings, 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, identifying differences, similarities or changes related to simple scientific ideas and processes, using straightforward scientific evidence to answer questions or to support their findings.					
LITERACY LINKS	Write instructions on how to create a circuit using scientific language	Oracy: Present your Web of Wildlife to an audience	Explain how we hear things using scientific vocabulary	Creative writing: The journey of a biscuit – include information about teeth and the digestion system	Read Michael Rosen 'Growing Apples'	Read Michael Rosen 'Centrally Heated Knickers' poem about chocolate
MATHS LINKS	Venn diagrams to show whether metals conduct electricity	Venn/Carroll diagrams to show similarities and differences	Graphs and charts to show loudness and pitch	Weighing and Measuring amounts of food / liquid to make a 'poo'	Classification keys	Measuring using thermometers and data loggers
STEM LINKS	Design and build a home that lights up	Design and make a Web of Wildlife	Use data loggers to record sounds and analyse results. Create a sound generator to play in a rock band.	Make a 'poo' using household ingredients.	Save our home! What is the common link between chocolate biscuits and orangutans?	Make your own water cycle.
	PROPERTIES AND CHANGING OF	FORCES Gravity, air-resistance,	EARTH AND SPACE Movement of Earth,	ANIMALS INCLUDING HUMANS	LIVING THINGS AND THEIR HABITATS	PROPERTIES AND CHANGING OF

5	MATERIALS (1) Thermal and electrical conductors, dissolving.	water-resistance, friction. Levers, pulleys and gears.	Moon and planets. How do we get day and night?	Do all animals grow old?	Reproduction in plants and animals.	MATERIALS (2) Separating materials, Change that produces new materials. Reversible and Irreversible changes.
SCIENTIFIC ENQUIRY	Does hot chocolate have to be hot? Why do we use different materials for different things?   	Do parachutes with larger canopies take longer to fall? How do large objects float on water? How can you lift heavy objects more easily?  	Is the sun in different places in the sky, or does it stay in the same place? How do we know about the movement of the Earth, Moon and planets?  	What happens to humans as they grow? Is the gestation period of all animals the same?  	Do all animals have the same life cycle? How does frogspawn change into a frog?  	How do you get clean water? What happens to an egg when it's cooked? What effect does cooking have on food?  
WORKING SCIENTIFICALLY UKS2	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, recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs, using test results to make predictions to set up further comparative and fair tests, reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations, identifying scientific evidence that has been used to support or refute ideas or arguments.					
LITERACY LINKS	Read 'Selenia in Homeward Bound' Science comic	Read 'Selenia and the Victorian Adventure' Science comic	Create fact files of different planets	Write a poem based on metamorphosis. Create a booklet for the human life cycle.	Oracy: explain the differences and similarities between animals' life cycles	Recipes and Instructions: how to bake a cake: explain scientifically what happens
MATHS LINKS	Using tables to record results of filtering	Use a timer and a table to record findings	Understanding the concept of distances between planets	A table and graph showing gestation periods	Measuring time taken for metamorphosis	Measuring ingredients using grams – conversion of measurements
STEM LINKS	Explain what makes hot chocolate hot	Build parachutes to test air resistance	Design and make an 'eggonaut'	Watch caterpillars metamorphasize into butterflies	Wacth frogspawn metamorphasize into frogs	Make popcorn, bake cakes, fry an egg
	EVOLUTION AND INHERITANCE	ANIMALS INCLUDING HUMANS	ELECTRICITY Brightness of lamp,	SCIENCE IN MY POCKET	LIGHT How light travels in	LIVING THINGS AND THEIR HABITATS

6	Fossils. Offspring different to parents. Animals and adaptation.	Human circulatory system. Exercise, drugs and lifestyle.	volume of buzzer. Symbols and circuit diagrams.		straight lines. How are shadows formed (shape)?	Classifications including micro-organisms, plants and animals.
SCIENTIFIC ENQUIRY	Battle of the beaks What will we look like in 10,000 years?  	How can you look after your heart? How can you improve your heart rate? Why is blood red?   	Are magnetic things good conductors of electricity? Can you make a light brighter?  	Can you lead your own investigation? 	How does a periscope work? Can you change the shape of a shadow?  	Can you classify similar things e.g. buttercups? Why is Carl Linnaeus important?  
WORKING SCIENTIFICALLY UKS2	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, recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs, using test results to make predictions to set up further comparative and fair tests, reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations, identifying scientific evidence that has been used to support or refute ideas or arguments.					
LITERACY LINKS	Present a news report on the evolution of life on Earth	Write instructions on how to dissect a heart	Drama: act out an electricity circuit	Explain a science investigation to an audience	Explain how a rainbow is formed Explain how a periscope works	Present your own classification system on your classmates
MATHS LINKS	Use diagrams to classify and group themselves: eye colour etc	Time heart rates and compare before and after exercise	Using tables and graphs to show brightness of bulbs	Use timers, tables and measuring equipment to record results	Measuring straight lines and angles. Shapes.	Count minibeasts in the local area
STEM LINKS	Design a species adapted to a particular habitat or of the future	Dissect a heart Make blood	Make a moving toy vehicle using battery power: forward, reverse, lights on and off.	Design your own investigation	Make a periscope. Make a stained glass window.	Bugs Count - What Bugs Are Living Near You?