



Longwick C of E Combined School EYFS Science Curriculum overview

Animals

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Learn that animals are living things	Identify that animals are living things Know the difference between a living and non-living thing Use different media to create a model	PD: Begin to show accuracy and care when drawing UW: Explore the natural world around them, making observations and drawing pictures of animals and plants UW: Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class	living tree adult non living young	<i>Modelling clay/plasticine/dough, craft materials, pictures of animals</i>
Discover where animals live and what they need to survive	Explain what some animals' habitats are like and what they need to survive in their habitat Describe an animal's habitat Know where some domestic and wild animals live	PD: Begin to show accuracy and care when drawing UW: Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class ED: Make use of props and materials when role playing characters in narratives and stories	pet ocean habitat desert farm	<i>Paper, pens, paint, craft and modelling materials, model animals (optional)</i>
Explore where birds live and what they need to survive	Explain why birds need to live in a nest Know the types of food birds feed on Identify birds based on their features	PSSED: Show an ability to follow instructions involving several ideas or actions UW: Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class	bird nest build mud grass	<i>String, bird seed, pinecone or stick, lard</i>
Learn about farm animals	Explain how some products can be produced by an animal Understand the role farm animals have as a producer Know which animals live on a farm	PD: Use a range of small tools, including scissors, paint brushes and cutlery UW: Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class UW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter	pig horse cow goat chicken	<i>Range of farm-based products (milk, eggs, cheese, leather, feather cushion, woolly jumper), toy animals, plastic hoops</i>
Learn about dinosaurs that lived on Earth	Explain the difference between types of dinosaurs Understand the type of skin dinosaurs had and similarities to creatures today Know that dinosaurs lived a long time ago	ED: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function ED: Share their creations, explaining the process they have used UW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter	dinosaur lizard meteorite museum reptile	<i>Bubble wrap, paints, aprons, paper, pens</i>

Food

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Learn about your diet and how to stay healthy	Understand the importance of staying healthy Describe a balanced diet Know the difference between healthy and unhealthy food	PSED: Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions. PSED: Explain the reasons for rules, know right from wrong and try to behave accordingly; M: Compare quantities up to 10 (and beyond) in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;	diet exercise tooth healthy fuel	<i>Different types of fresh fruit (banana, orange, raspberry), 120ml water (1/2 cup), blender or whisk, cup, knife and chopping board, sieve</i>
Explore different types of vegetables	Understand which vegetables grow overground or underground Name several types of vegetables Identify three different types of vegetables	CL: Make comments about what they have heard and ask questions to clarify their understanding CL: Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate	vegetable cabbage cauliflower celery radish	<i>A variety of fruit and vegetables, sorting hoops</i>
Discover different types of fruit	Identify if a fruit tastes bitter or sweet Use clues to identify a fruit Identify and describe a range of fruit	UTW: Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class CL: Make comments about what they have heard and ask questions to clarify their understanding	apple orange pear strawberry fruit	<i>Mystery box/bag, plates, 5 different fruits (whole and cut into chunks)</i>
Learn about chicken and eggs	Explain where eggs come from Understand stages of a chicken's life Name the parts of a chicken	PD: Use a range of small tools, including scissors, paint brushes and cutlery EAD: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function	chicken egg lay fox chick	<i>Card (yellow), split pins, scissors, pens</i>
Discover that cows produce milk	Understand how milk can be used to keep us healthy Explain what a cow produces Explain where milk comes from	UTW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter PSED: Set and work towards simple goals, being able to wait for what they want and control their immediate impulses when appropriate	cow milk cream cheese butter	<i>Milk, food colouring, washing up liquid, cotton buds, shallow plate</i>

Food

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Examine different ingredients, then weigh them to make a mixture (Easter/Lent)	Follow verbal instructions to make a mixture Describe the changes the batter mix goes through as it starts to cook Explain how to measure	CL: Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions PSED: Be confident to try new activities and show independence, resilience and perseverance in the face of challenge PSED: Explain the reasons for rules, know right from wrong and try to behave accordingly	pancakes lemon scales sugar fry	<i>100g plain flour, 2 large eggs, 300ml milk, OR pre-made cold pancakes, frying pan, fillings for pancakes (squirty cream, lemon juice, sugar, grated cheese, chocolate spread, etc.)</i>
Explore the use of wheat and flour to make a dough (Chinese New Year)	Follow instructions accurately Understand the process in making dough Use materials to shape and cut	M: Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts M: Have a deep understanding of number to 10, including the composition of each number PD: Use a range of small tools, including scissors, paint brushes and cutlery	noodles wheat flour grain bread	<i>1 cup flour, 1/2 cup salt, water, cutters (optional), rolling pin, oven / microwave, poster paint</i>

Forces

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Understand what happens when you push or pull something	Describe what happens when pushes and pulls oppose each other Suggest examples of pushes and pulls Identify if an action is a push or a pull	PD: Use a range of small tools, including scissors, paint brushes and cutlery PD: Demonstrate strength, balance and coordination when playing PD: Negotiate space and obstacles safely, with consideration for themselves and others	push pull press suck swing	<i>Scissors, glue, camera</i>
Explore objects that sink and float	Group objects based on whether they sink or float Explain what sink means Explain what float means	PD: Begin to show accuracy and care when drawing CL: Make comments about what they have heard and ask questions to clarify their understanding	sink sea float boat force	<i>A bowl or container filled with water, variety of objects that won't be destroyed by being placed in water (such as stones, metal spoons, wood, feathers, modelling clay, etc), pen and paper, balloons</i>

Health and safety

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Explain about the people you can trust	Identify safe strangers Explain where to go if I need help Understand the term 'stranger danger'	UTW: Make comments about what they have heard and ask questions to clarify their understanding UTW: Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps L: Write recognisable letters, most of which are correctly formed PD: Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases	trust uncomfortable police officer stranger danger stranger	<i>Scissors, coloured paper, pens, glue, lolly sticks, scissors</i>
Learn how to stay safe when using electricity	Identify where electrical appliances can be used Identify what I need to do to stay safe when using electrical appliances Explain why water and electricity do not mix	PD: Use a range of small tools, including scissors, paint brushes and cutlery EAD: Share their creations, explaining the process they have used	danger electricity energy rule safe	<i>Catalogues and magazines with pictures of electrical appliances, scissors, glue</i>
Explore different houses and the things we need in our home	Explain what a home needs to work Understand which materials are needed to build a home Explain the difference between different types of homes	EAD: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function UTW: Know some similarities and differences between different religious and cultural communities in this country, drawing on their experiences and what has been read in class	house flat semi-detached terraced radiator	<i>Boxes, coloured card/paper, magazines with pictures of houses/doors/windows etc, paints, brushes, aprons, scissors, glue</i>
Discover First Aid and what to do in an emergency	Understand what first aid is Recall items in a first aid kit Apply a plaster and know what to do in an emergency	PSED: Explain the reasons for rules, know right from wrong and try to behave accordingly	999 burn cut first aid plaster	<i>First Aid Kit: a full, modern first aid kit, plasters (preferably latex free), mobile phone</i>
		Washing hands lesson?? Duplicated electricity lesson on the platform.		

Insects and invertebrates

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Learn about insects and invertebrates	Understand which creatures are insects and invertebrates Describe the differences between spiders, flies and centipedes Name and draw the parts of an insect	PD: Use a range of small tools, including scissors, paint brushes and cutlery PD: Begin to show accuracy and care when drawing UTW: Explore the natural world around them, making observations and drawing pictures of animals and plants EAD: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function	fly beetle insect ant invertebrate	<i>Tiles, bricks, stones, pipes, sticks</i>
Discover where insects and invertebrates live?	Identify what insects and invertebrates need to survive Observe insects and invertebrates closely in their habitats Describe where insects and invertebrates live	PD: Begin to show accuracy and care when drawing L: Write recognisable letters, most of which are correctly formed UTW: Explore the natural world around them, making observations and drawing pictures of animals and plants	ladybird spider snail honey worm	<i>Outdoor space with some sticks, stones and leaves available for use (if not available in the grounds, collect some beforehand), clean container with no lid, magnifying glasses, plastic spoon, 10-15 assorted unnatural objects (e.g. plastic animals or toys), cutlery, a pen, hand wash gel</i>
Explore more about insects and invertebrates	Understand the differences between insects and invertebrates Explain how many legs an insect has Describe what a habitat is	UTW: Explore the natural world around them, making observations and drawing pictures of animals and plants M: Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity M: Subitise (recognise quantities without counting) up to 5	sap habitat greenfly food toast	<i>Paper, pencils, camera, clear plastic pots</i>

Machines

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Explore different types of machines and mechanisms	Explain what each mechanism does Understand a machine is made of many moving parts Talk about different types of mechanisms	ED: Safely use and explore a variety of materials, tools and techniques ED: Share their creations, explaining the process they have used	gear lever mechanism pulley wheel and axle	<i>Peg, tape, glue, straw cocktail stick, buttons, paints or felt tips, modelling clay (optional)</i>
Learn how machines make jobs easier	Explain how a machine helps us Identify some different types of machines Know what a machine is	ED: Safely use and explore a variety of materials, tools and techniques ED: Share their creations, explaining the process they have used	crane machine trolley wheel wheelbarrow	<i>String, pipe cleaners, straw, chair, tape</i>
Discover different types of transport	Understand how to plan a journey Decide the most appropriate means of transport for each leg of the journey Name different types of vehicles	PD: Begin to show accuracy and care when drawing UTW: Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps EAD: Invent, adapt and recount narratives and stories with peers and their teacher	car bus transport bicycle aeroplane	<i>Local map, A2 sheets of paper</i>

Materials				
Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Learn about living and non-living things	Identify something that is living Identify something that is non-living Explain what something living has to have	CL: Make comments about what they have heard and ask questions to clarify their understanding UTW: Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class UTW: Explore the natural world around them, making observations and drawing pictures of animals and plants	non-living car toy bike scooter	<i>Paper, pencils</i>
Discover that some things can change shape	Explain what happens to chocolate when it starts to melt Explain what happens to chocolate when it starts to become hard Follow instructions	CL: Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions UTW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter	change solid liquid pan metal	<i>200g milk chocolate, 85g shredded wheat cereal, crushed 2 x 100g bags mini chocolate eggs, cupcake cases</i>
Explore the process of melting	Use a mould to make an ice cube Explain how ice is formed Describe the best conditions for melting ice	UTW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter CL: Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate	melt freeze cold set mould	<i>Ice Cubes, items to freeze, plate/plastic cups, timer/stopwatch (optional)</i>
Learn about different materials	Explain which material is the most absorbent Explain which material is good for different clothing Complete a simple test	UTW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter CL: Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate	sheep fleece shear wool ball	<i>Different types of material (cotton wool balls, felt, tin foil, plastic, paper, napkin) jars or beakers, water, labels, pen</i>
Discover how to make the perfect sandcastle	Explain what I need to do to build the perfect sandcastle Measure accurately to compare Understand how to make a mixture	UTW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter CL: Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate	bucket sand sandcastle sculpture shovel	<i>Dry sand, water, small plastic containers (buckets), measuring jugs, scales</i>

Our body

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Learn about your body parts: the arms, legs, and chest	Explain how I use my arms, legs, and chest Give examples to explain how I use my arms, legs, and chest Label parts of my body on a diagram	UTW: Explore the natural world around them, making observations and drawing pictures of animals and plants CL: Make comments about what they have heard and ask questions to clarify their understanding	arm leg chest jump move	<i>A roll of wallpaper or large paper, pen or chalks, scissors</i>
Learn about your body parts: the hands and feet	Explain how my hands can be used Explain how my feet can be used Understand the different body parts	PD: Use a range of small tools, including scissors, paint brushes and cutlery EAD: Share their creations, explaining the process they have used	hand finger feet walk run	<i>Paint, paper, paintbrush, measuring tools</i>
Learn about your body parts: the eyes and nose	Describe and explain how we use our eyes and nose to see and smell Know which senses our eyes and nose are used for Know what the eyes and nose are and where they are	EAD: Make use of props and materials when role playing characters in narratives and stories CL: Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary PSED: Show an understanding of their own feelings and those of others, and begin to regulate their behaviour accordingly PD: Negotiate space and obstacles safely, with consideration for themselves and others	eyes nose face blink colour	<i>Beanbags, chairs, items for an obstacle course, blindfold</i>
Learn about your body parts: the ears, mouth and hair	Explain how ears work Explain the functions of your mouth Understand the functions of your hair	PD: Begin to show accuracy and care when drawing EAD: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function	ears mouth hair eyebrows teeth	<i>String, paper, pencils, colouring pencils, wool/string</i>
Discover how our bodies change	Understand how humans grow Describe changes in our own bodies List some ways we have changed from a baby	UTW: Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class CL: Make comments about what they have heard and ask questions to clarify their understanding	baby food grow hair teeth	<i>Photos of children (parents may need contacting in advance), camera</i>
Explore our similarities and differences and how we are all unique	Understand similarities and differences in human beings Describe ways in which you are unique to others Know the different features of your body	CL: Make comments about what they have heard and ask questions to clarify their understanding UTW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter	freckles gene sibling different unique	<i>felt tip pens, paper</i>

Plants

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Discover that plants are living things	Explain why a plant is a living thing and what it needs to live Describe the features of a living thing Know the difference between a living and a non-living thing	PD: Use a range of small tools, including scissors, paint brushes and cutlery UTW: Explore the natural world around them, making observations and drawing pictures of animals and plants	plant seed nutrients soil water	<i>Newspapers/magazines, selection of living and non-living items, plant cuttings, pens, paper</i>
Learn about plants and where they come from	Explain the life cycle of a plant Label the key features of a plant Understand where plants come from	CL: Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary UTW: Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps ED: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function	plant soil seed stem pink	<i>Camera, paper, pencils, tape measures, wax crayons, scissors</i>
Explore how to look after plants	Explain what a plant needs to live Understand a plant grows from a seed Know the features of a plant	PSED: Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions UTW: Explore the natural world around them, making observations and drawing pictures of animals and plants UTW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter	sunlight compost heap weeds garden roots	<i>Trowel, potting compost, cup, seeds, watering can</i>

Space

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Explore outer space	Understand how far planets are from the Sun Describe what different planets are like Know there are other planets in our solar system	PD: Use a range of small tools, including scissors, paint brushes and cutlery UTW: Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class ED: Share their creations, explaining the process they have used	planet Solar System gas planet rocky planet Sun	<i>Paper plates, paint, scissors glue, aprons, collage items - cotton wool, magazine clippings, etc, bubble wrap</i>
Discover why rockets are important	Explain why space travel is important Measure distance Design and make a rocket	PD: Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases M: Have a deep understanding of number to 10, including the composition of each number ED: Make use of props and materials when role playing characters in narratives and stories	firework launch rocket travel Space	<i>Kitchen/toilet rolls (cardboard tubes), pieces of card cut into circles and rocket fin shapes, sticky tape, tape measure</i>

The senses

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Learn about the senses, sight and touch	Identify key senses of the human body Describe what senses can help us to do Name which parts of the body are linked by senses	PD: Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases PSED: Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions	senses eyes sight taste touch	<i>Blindfold, paper, pencil</i>
Explore ways to make sound	Explain that different materials can make different sounds Make a simple musical instrument Explain how to change a sound being made	EAD: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function EAD: Make use of props and materials when role playing characters in narratives and stories EAD: Perform songs, rhymes, poems and stories with others, and – when appropriate – try to move in time with music	trumpet reed ripple noise vibration	<i>Various household items (bowl, clingfilm, paper cup, rubber bands, empty cardboard tubes, beads, plastic boxes, spoons etc.)</i>
Discover the senses of hearing and sight	Understand sound as vibrations Explain how I use my sense of hearing and sight Draw and write items from memory using clues from my senses	CL: Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions CL: Make comments about what they have heard and ask questions to clarify their understanding	senses hearing sight sound yellow	<i>Paper, pencils</i>
Explore the senses of smell and touch	Feel an object without seeing it and describe it in detail Describe the taste of something Understand the words feel and taste	CL: Make comments about what they have heard and ask questions to clarify their understanding PSED: Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions	smell touch taste orange slice	<i>blindfold/feely bag, items to smell (banana, toothpaste, teabag...), items to feel</i>
Learn about your sense of taste	Identify key senses of the human body Describe what senses can help us to do Name which parts of the body are linked by senses	CL: Make comments about what they have heard and ask questions to clarify their understanding PSED: Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions	taste senses colour sight taste buds	<i>Range of different flavour drinks E.G: blackcurrant, apple, orange, lemon, lime, mango, orange food colouring</i>

Weather and seasons

Lesson Intention	Objectives	Working Towards ELGs	Rocket Words	Resources
Learn about rain, ice, and water	Describe what clothes you need to wear in the rain Explain the differences between rain, ice and water Understand the role of clouds	CL: Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate UTW: Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class	rain ice rainforest cloud river	<i>Shaving foam, beaker, food colouring, water</i>
Describe why the air moves	Understand wind direction Describe what causes wind Recall that wind is the movement of air	UTW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter EAD: Make use of props and materials when role playing characters in narratives and stories	wind movement air rise sail	<i>Card, tape, tissue paper, ribbon, string</i>
Explore snow and melting	Explain what snow is Understand that snow melts when the weather gets warmer Model and construct using different media	EAD: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function PSED: Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions	snowflake melt snowman cool cold	<i>Bicarbonate of soda, bowl, water, fork, shaving foam</i>
Discover how rainbows are formed	Identify objects which are the same colour as the colours in the rainbow Understand how a rainbow is formed Investigate how to make a rainbow	PSED: Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions CL: Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary	rainbow raindrop yellow arc blue	<i>small mirror, plastic container, water, CD</i>
Learn about the seasonal changes that happen in Spring and Summer	Understand seasonal changes Explain what happens during each season Describe what clothes you might need for each season	UTW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter CL: Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate	Spring Summer warm bird Sun	<i>Variety of clothing from different seasons</i>
Learn about the seasonal changes that happen in Autumn and Winter	Understand seasonal changes Explain what happens during each season Describe what happens to a tree during the four seasons	PD: Use a range of small tools, including scissors, paint brushes and cutlery UTW: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter EAD: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function	Autumn Winter snow bark season	<i>Glue, felt tip pens, scissors, tissue paper (optional), cotton wool (optional)</i>