Unit	Lesson name	Lesson No.	Learning objective	Expected Standard (EXS)	Greater depth (GDS)
Habitats	Life processes	1	**Knowledge:** To identify some of the characteristics of living things.	Asking questions to further their knowledge; recalling some of the life processes and giving some examples of how they apply to plants or animals. **Processes to be covered in a child friendly version: move, feel, eat, breathe, get rid of waste, have babies**.	Asking questions about commonalities between living things; explaining how life processes apply to different living species.
	It feels good to be alive	2	**Knowledge**: To know the difference between things that are alive, were once alive or have never been alive. **Working scientifically:** To begin to analyse by classifying objects into groups.	Using knowledge of the life processes to classify objects into alive, never been alive and was once alive, giving reasons for their choices.	Using a broader range of life processes to explain their reasoning.
	Introduction to habitats	3	**Knowledge**: To identify and name a variety of plants and animals in different habitats.	Naming some habitats and describing the conditions and matching different plants and animals to their habitats. **You must cover: coastal, woodland, ocean, polar and rainforest**.	Giving examples of what a habitat provides for the plants and animals that live there.
	Woodland habitats	4	**Knowledge**: To know that a habitat provides what animals and plants need to survive.	Recalling some plants and animals in a woodland habitat and giving some examples of how animals use the woodland habitat for food and shelter.	Giving examples of how some animals are adapted to survive in a woodland habitat.
	Ocean and rainforest habitats	5	**Knowledge**: To understand how animals and plants depend on each other.	Recalling that plants produce their own food for energy, giving examples of how a predator depends on other animals for food and giving examples of how animals depend on plants for shelter.	Explaining how some plants and animals have features that help them to find food, to make their own shelters or to protect themselves from predators. E.g. The poison dart frog has poisonous skin that kills the predators who eat it.
	Food chains	6	**Knowledge**: To know that animals get their food from plants and other animals.	Naming living things that are producers and placing a producer at the beginning of a food chain; naming some carnivores, omnivores and herbivores and recalling what they eat; correctly orientaing arrows to show the order in which living things eat each other in a food chain.	Naming living things as producers, prey or predators and using prior knowledge to draw a food chain independently.
Microhabitats	Identifying and classifying minibeasts	1	**Working scientifically**: To classify a variety of minibeasts.	Grouping minibeasts based on observed similarities and differences; organising questions to create a simple classification key.	Choosing their own criteria to group minibeasts; creating a classification key with a logical question sequence.
	Introduction to scientific enquiry	2	**Working scientifically:** To recognise how scientists answer questions.	Asking suitable questions about worms; recognising some ways in which questions can be answered; using a text to answer questions.	Using a text to find answers to specific questions and writing down the answers; giving reasons for their predictions.
	Minibeast hunt	3	**Knowledge**: To recognise that living things live in habitats to which they are suited. **Working scientifically:** To gather and record data to answer a question.	Gathering data about minibeasts found in different microhabitats; using data to answer a question; giving examples of how microhabitats suit the needs of the minibeasts that live there.	Gathering tally data to record the number of minibeasts found in different microhabitats; giving examples of ways in which microhabitats depend on minibeasts.
	Planning an experiment	4	**Working scientifically**: To ask questions and plan how to carry out an experiment.	Asking questions about minibeasts; suggesting how the equipment could be used to carry out an experiment and what observations to make; ordering the steps of the method.	Adding adverbs to the method to give more detail; explaining how they will use their observations to answer the question.
	Woodlice experiment	5	**Working scientifically:** To carry out an experiment and record data in a table.	Using simple equipment to gather data; recording tally marks in a table; using their results to answer a question.	Making predictions based on prior knowledge; recognising how the method of an experiment could be improved.
	What is a botanist?	6	**Knowledge**: To identify a variety of flowering plants. **Science in action:** To understand the role of a botanist.	Describing the appearance of flowering plants; using an identification chart to name flowering plants; describing the role of a botanist.	Using a range of adjectives to describe the appearance of flowering plants in detail; recognising similarities and differences.

Uses of everyday materials	Objects and materials	1	**Knowledge:** To recognise that objects are made from materials that suit their uses.	Sorting objects according to different criteria, e.g. types of material and uses of objects; naming objects with the same use that are made from different materials; naming a material that is used to make objects with different uses.	Naming materials that are not suitable for specific objects and explaining why.
	Which material is suitable?	2	**Knowledge:** To recognise that objects are made from materials that suit their uses.	Naming objects and the materials they are made from; describing the properties of materials and explaining why they are suitable/unsuitable for an object's use. **You must cover: wood, water, metal, plastic, glass, brick, rock, paper and cardboard.**	Naming materials that are not suitable for specific objects and explaining why.
	Stretch it, twist it, bend it, squash it!	3	**Knowledge**: To recognise that the shapes of some solid objects can be changed. **Working scientifically**: To record data in a table.	Recognising that stretching, twisting, bending and squashing can cause some solid objects to change shape; describing how objects behave after an action has been performed.	Explaining why some objects return to their original shapes and why some remain in their new shapes.
	Testing stretchiness	4	**Knowledge**: To compare the suitability of materials for particular uses. **Working scientifically**: To gather data and use it to answer a question.	Working in a group to measure length with non-standard units and recording the results, comparing and using the data collected to answer a simple question.	Using their life experience to make predictions; using a ruler to measure to the nearest centimetre; using their results to explain how they know which material was the most and least stretchy.
	Testing strength	5	**Working scientifically:** To record data in a block graph.	Measuring strength using non-standard units, labelling categories and recording results in a block graph; using these results to answer questions.	Labelling axis titles and accurately labelling the scale on the y-axis in intervals of two.
	Eco-friendly materials	6	**Knowledge:** To compare the suitability of materials for particular uses. **Science in action:** To recognise that some materials are harmful to the environment.	Naming properties that make materials suitable for their use; giving examples of how plastic is harmful to the environment; selecting eco-friendly materials.	Generating ideas for eco-friendly gifts and explaining why certain materials are better for the environment.
Life cycles and health	The human life cycle	1	**Knowledge:** To identify different stages of the human life cycle.	Identifying animal offspring; ordering the human life cycle; describing some indicators of each stage of the human life cycle. **Must cover: baby, child, teenager, adult and old age.**	Labelling their life cycle with key indicators for each stage of the life cycle; describing verbally what might happen if we did not stop growing.
	Life cycles	2	**Knowledge:** To know which offspring come from which parent animal.	Matching animals with their offspring; identifying different stages of specific animal life cycles; ordering an animal life cycle.	Applying knowledge by ordering a life cycle with less familiar stages.
	Growth	3	**Knowledge:** To observe and measure growth in humans. **Working scientifically:** To use simple measuring equipment.	Measuring using a tape measure; recording in centimetres; creating a graph; drawing conclusions from the results.	Considering further developments other than height and describing these orally.
	Survival	4	**Knowledge:** To identify and list the basic needs for survival for humans and animals. **Working scientifically:** To use secondary sources to research.	Describing that all animals need air, water and food to survive; identifying that humans gather food differently to animals in the wild; explaining how a specific animal survives.	Predicting what might happen if only provided with a single food source.
	Exercise and hygiene	5	**Knowledge:** To recognise the importance of exercise and personal hygiene. **Working scientifically:** To make observations over time.	Describing how germs spread through contact by referencing the glitter experiment; describing how to take care of their personal hygiene; collecting data over time; observing improvements after exercise.	Creating questions to help understand how exercise or hygiene routines change as we get older; using their own knowledge to describe how to keep clean without water.
	Balanced diet	6	**Knowledge:** To identify how to have a balanced diet. **Working scientifically:** To interpret collected results.	Recognising that a decreasing time or increasing distance indicates improvement; naming foods from each food group; selecting foods to create a balanced shopping list. **You must cover: fruits and vegetables, protein, fats, carbohydrates and dairy.**	Recognising different ingredients to create a balanced shopping bag for someone with dietary requirements.
Plant growth	What do seeds need to grow?	1	**Knowledge:** To recognise that seeds need certain conditions for growth. **Working scientifically:** To plan comparative tests.	Suggesting conditions necessary for seed growth, setting up comparative tests by changing these growth conditions; planning observations and measurements to monitor these changes.	Suggesting how often the seeds should be watered; explaining why it is important to plant some seeds in standard conditions.
	Seeds and bulbs	2	**Knowledge:** To recognise that seeds and bulbs contain what they need to grow into a plant. **Working scientifically:** To measure with a ruler.	Recalling that seeds have all the necessary parts inside for the plant to grow when the conditions are right; using a ruler to measure and record the height of their plant stem.	Drawing a detailed diagram of their plant including labels and captions to describe how a seed uses its energy to to grow when the conditions are right.

	Germination	3	**Knowledge:** To describe what seeds need to germinate. **Working scientifically:** To record data in a table.	Recalling that seeds need water and warmth to germinate, recording plant growth data in a table; comparing plant growth in different test conditions.	Predicting how dark conditions will affect the growth of a seedling, explaining their reasoning.
	Light and plant growth	4	**Knowledge:** To describe the effect of light on plant growth. **Working scientifically:** To observe using a magnifying glass.	Using a magnifying glass to observe and compare plants, recognising that light is required for healthy growth; recording plant growth data over time.	Making links with previous knowledge; recording height in centimetres and millimetres.
	Plant life cycle	5	**Knowledge:** To identify stages of a plant's life cycle. **Working scientifically:** To draw and label diagrams.	Sequencing and describing the stages of a plant's life cycle; drawing diagrams to represent each stage. **You must cover germination.**	Distinguishing between the life cycles of different plant types; adding detail to their diagrams by drawing on prior knowledge.
	Plant care	6	**Knowledge:** To recognise what plants need for healthy growth. **Science in action:** To recognise that humans have a responsibility to care for plants.	Recalling that plants need water, light and warmth for growth, recognising the importance of healthy plant growth; describing some positive and negative influences humans have on plants in the environment.	Justifying why certain conditions are beneficial but not essential for healthy plant growth; drawing on their observations throughout the unit to add detail when describing what plants need for healthy growth.
Plant-based materials	Reduce, reuse, recycle	1	**Knowledge:** To describe how materials can be reused. **Science in action:** To understand how the 3Rs contribute to sustainable products.	Understanding material properties; classifying materials correctly; designing a product made from reused materials.	Labelling a design with the name of materials and the properties of materials.
	From plants to products	2	**Knowledge:** To identify human-made and natural materials. **Working scientifically:** To group based on characteristics.	Sorting human-made and natural materials; recounting the paper-making process; recognising that natural materials are better for the environment.	Determining how to identify human-made materials based on their feel.
	Testing suitability	3	**Knowledge:** To identify suitable materials based on their properties. **Working scientifically:** To perform a test and gather data.	Recording qualitative data about material properties in a table; deciding which materials might be suitable based on results; suggesting materials for a plant pot based on its properties.	Suggesting materials beyond those tested that might pass the tests.
	Testing plant pots	4	**Knowledge:** To identify a material to help plant growth. **Working scientifically:** To use observations to answer a simple question.	Drawing a conclusion based on the results from the last lesson; testing materials by following instructions to make a plant pot; selecting a suitable material for a plant pot based on results.	Predicting which material will make the best plant pot before testing.
	Choosing materials	5	**Knowledge:** To choose materials to create a suitable plant pot. **Working scientifically:** To identify and classify living things.	Creating a plant pot from an eco-friendly material based on results; choosing natural materials that have never been alive or were once alive as decoration; planting a seed under good growth conditions to help it germinate.	Reasoning about their natural material choices based on the life processes of living things.