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| **Happiness** | **Responsibility** | **Friendship** | **Respect** | **Courage** |
| **Science – Year 2** |
| **Autumn Term** |
| Unit | Planning and teaching sequence | Work Scientifically Opportunities | National Curriculum Objectives |
| Animals needs for survival(Biology) | Mammals | Working scientifically − Asking simple questions and recognising that they can be answered in different ways. | * find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
 |
| Birds | Working scientifically – Gathering and recording data to help in answering questions |
| Fish | Working scientifically − Identifying and classifying. |
| Amphibians | Working scientifically − Identifying and classifying. |
| Reptiles | Working scientifically − Gathering and recording data to help in answering questions. |
| Humans | Working scientifically − Using their observations and ideas to suggest answers to questions. |
| Humans(Biology) | Exercise | Working scientifically − Gathering and recording data to help in answering questions. | * 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
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| Food | Working scientifically – Identifying and classifying. |
| Hygiene | Working scientifically − Observing closely, using simple equipment. |
| Teeth | Working scientifically − Observing closely, using simple equipment |
| Materials(Chemistry) | Explore materials  | Working scientifically − Identifying and classifying. | * 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
 |
| Wood, paper and cardboard | Working scientifically − Performing simple tests. |
| Brick and rock | Working scientifically − Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them (non-statutory). |
| Glass and plastic | Working scientifically − Asking simple questions and recognising that they can be answered in different ways. |
| Metal  | Working scientifically − Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them (non-statutory). |
| Fabrics  | Working scientifically − Observing closely, using simple equipment. |
| Same object, different material | Working scientifically − Using their observations and ideas to suggest answers to questions. |
| Test materials – bend, squash, twist and stretch | Working scientifically − Performing simple tests. |
| Plan – waterproof experiment | Working scientifically − Asking simple questions and recognising that they can be answered in different ways. |
| Investigate – waterproof experiment | Working scientifically − Using their observations and ideas to suggest answers to questions. |
| Plastic(Sustainability) | How is plastic helpful and harmful? | Working scientifically – Explore the world around them and raise their own questions (non-statutory). |  |
| How can we reduce our plastic waste in school? | Working scientifically – Using their observations and ideas to suggest answers to questions. |
| Spring Term |
| Plants (light and dark)(Biology) | Explore plants | Working scientifically − Observing closely, using simple equipment | * 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
 |
| Plant parts  | Working scientifically − Observing closely, using simple equipment. |
| What do plants need to grow? | Working scientifically − Asking simple questions and recognising that they can be answered in different ways. |
| Plan – light and dark | Working scientifically − Asking simple questions and recognising that they can be answered in different ways. |
| Investigate – light and dark | Working scientifically − Performing simple tests. |
| Living things and their habitats(Biology) | Habitats in my local area | Working scientifically − Gathering and recording data to help in answering questions. | * 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
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| Polar habits | Working scientifically − Using their observations and ideas to suggest answers to questions. |
| Desert habitats | Working scientifically − Using their observations and ideas to suggest answers to questions. |
| Ocean habitats | Working scientifically − Identifying and classifying. |
| Woodland habitats | Working scientifically − Identifying and classifying. |
| Microhabitats  | Working scientifically − Observing closely, using simple equipment. |
| Habitats and diet | Working scientifically − Gathering and recording data to help in answering questions. |
| Food chains | Working scientifically − Gathering and recording data to help in answering questions. |
| Living, dead or never  | Working scientifically − Identifying and classifying. |
| Plants (light and dark)(Biology) | Findings – light and dark | Working scientifically − Gathering and recording data to help in answering questions. | * 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
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| Summer |
| Plants (bulbs and seeds)(Biology) | Bulb or seed? | Working scientifically − Observing closely, using simple equipment. | * 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
 |
| What do plants need to grow? | Working scientifically − Record and communicate their findings in a range of ways and begin to use simple scientific language (non-statutory). |
| Plan – bulbs and seeds | Working scientifically − Asking simple questions and recognising that they can be answered in different ways. |
| Plant – bulb and seeds | Working scientifically − Performing simple tests. |
| Growing up(Biology) | Parent and offspring | Working scientifically − Identifying and classifying. | * notice that animals, including humans, have offspring which grow into adults
 |
| Life cycle of humans | Working scientifically – Asking simple questions and recognising that they can be answered in different ways. |
| Life cycles of different mammals | Working scientifically − Record and communicate their findings in a range of ways and begin to use simple scientific language (non-statutory). |
| Life cycles of amphibians | Working scientifically − Identifying and classifying. |
| Life cycles butterfly | Working scientifically − Observing closely, using simple equipment. |
| Are there patterns between the life cycles of different animals? | Working scientifically − Using their observations and ideas to suggest answers to questions. |
| Bulbs and seeds(Biology) | Findings – bulbs and seeds | Working scientifically − Observing closely, using simple equipment. | * 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
 |
| Growing up(Biology) | Butterfly diary | Working scientifically − Observing closely, using simple equipment. | * notice that animals, including humans, have offspring which grow into adults
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| Wildlife(Sustainability) | What does wildlife do for us? | Working scientifically − Asking simple questions and recognising that they can be answered in different ways |  |
| What can we do for wildlife? | Working scientifically − Using their observations and ideas to suggest answers to questions. |