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|  | National curriculum | Lesson outline | Key questions | Key vocab | Factual knowledge | Scientific enquiry |
| 1/2 | Plants A topic• Identify and describe the basic structure of a variety of common flowering plants, including trees.• Working scientifically − Asking simple questions and recognising that they can be answered in different ways. | How do the things I plant change over time?Due to the time of year, they will need to grow plants inside the classroom before transferring them outside and replanting when it is warmer. By the end of this step, children should understand that although some plants can grow in colder months, they need to be kept in a warmer temperature, such as the classroom, in order to grow. They do not need to use the word “temperature” as this concept is introduced in Year 2. However, they can observe that it is warmer in the classroom than it is outside. Within this step, children identify and name the basic parts of a plant to help them use correct terminology when observing changes in their own plants.Lesson 1 children will label a real plant using the correct vocabulary. Lesson 2Children should plant seeds to grow inside the classroom. They will need pots, trowels, seeds, soil and water. Discuss with children what they predict will happen to the seeds over time. Children should understand that their plants will need to start to grow in the classroom where it is warmer and will be moved outside in later months. Herbs would work best inside the classroom or a strawberry plant.  | • Where are the roots/stems/leaves/flowers? • What equipment will you use to plant the seeds? • Where will you keep the planted seeds? • What will happen to the seeds over time? • How often will you look for any changes? • What will your plant look like in one week/two weeks/ three weeks? • Why have you kept your plant inside during winter? | Plant, flower, leaf, stem, roots, seed, soil | • A plant is a living thing that usually grows in soil. • Some plants have roots, a stem, leaves and flowers. • A seed can be planted to grow into a new plant. • Some seeds can be planted in winter but must be kept warm to grow |  |
| 3 | Animals topic• Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • Working scientifically – Asking simple questions and recognising that they can be answered in different ways. | The main focus of this step is to look at the difference between mammals that can be kept as pets and mammals that live in the wild. Classifying humans as mammals and identifying sea mammals will be explored in Year 2. Children should be able to name a variety of common mammals and should recognise that they all have fur or hair on their body. In this small step, children begin a research enquiry to look at whether all animals are the same. Children should use secondary sources, such as picture books, images and videos, to help them form an answer to the enquiry question.**Are all animals the same?**• Group images of mammals based on whether they can be kept as pets or whether they live in the wild. Encourage children to think about whether or not certain mammals can be kept as pets and also live in the wild. • Prompt children to discuss different mammals they have as pets. Encourage them to ask questions about each other’s pets to identify some similarities and differences between different mammals. • Pick a card with a mammal on it but keep it to yourself. Children must guess the mammal on the card by asking yes/no questions about its characteristics. | • What is a mammal? • What mammals are shown? • Is a a mammal? How do you know? • Does a have fur? • Can all mammals be pets? How do you know? • Can all mammals live in the wild? How do you know? | Animal, mammal, fur, wild mammal, pet | • Mammals have fur or hair on their bodies. • Some mammals can be kept as pets. • Some mammals live in the wild |  |
| 4 | • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • Working scientifically − Gathering and recording data to help in answering questions. | Within this small step, children could gather and record data by completing a bird watch in the local area. This could be repeated later in the year to compare data from different seasons. With support, children could count the number of birds they see and record the data in numerals as they are not yet familiar with using tally marks.• Paint or draw a bird and label its features. • Provide children with images of a range of familiar birds. Ask them to identify the birds and discuss their similarities and differences. Children could use sentence stems to structure their discussions. • Both birds have … • Something that is similar about these birds is … | • What features do all birds have? • Is a a bird? How do you know? • Does a have feathers? • Can all birds fly? How do you know? • What birds are shown? • Which birds can swim? • What are the differences between these two birds? | Bird, wings, beak, feathers, flipper, webbed feet | • Birds have beaks, wings and feathers. • Some birds can fly. • Some birds cannot fly. • Some birds can swim. • Some birds cannot swim. |  |
| 5 | • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • Working scientifically – Identifying and classifying | Children will now be able to explore the enquiry question in greater depth as they have an understanding of mammals, birds and fish. Provide opportunities to discuss the key differences between these animals groups and encourage children to explain, for example, why a penguin is not a fish and what group penguins belong to.• Place large labels on the carpet. **fish mammal bird** Give children images of different animals and ask them to sort them into the correct groups. What features does each animal group have? Ask children to sort the images in another way. For example, they may choose to sort the images as animals that can be kept as pets and animals that cannot | • What features do fish have?• What fish are shown?• Is a a fish?• What do fish have to help them swim?• What do fish have to help them breathe underwater?• How is a fish different from a mammal?• How is a fish similar to a bird? | Fish, fin, gills, scales | • Fish live in water. • Some fish have scales on their bodies. • Fish have fins to help them swim. • Most fish have gills that help them breathe underwater. |  |
| 6 | • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • Working scientifically − Identifying and classifying. | Children continue to explore the enquiry question in this step and should be given opportunities to develop their ideas and thinking throughout. Children may think that amphibians are fish as they spend part of their life in water. Therefore, it is particularly important to explore the differences between these two animal groups.• Group images of animals based on whether they are amphibians or not. Include examples of mammals, fish and birds. Encourage children to explain their reasoning. • Use secondary sources to compare different amphibians. Encourage children to discuss their similarities and differences | • Is a an amphibian? • What features do amphibians have? • What amphibian is this? • Where do amphibians live? • What are the differences between a fish and an amphibian? • How is an amphibian similar to a mammal/bird/fish? • How is an amphibian different from a mammal/bird/fish? | Amphibian, frog, toad, newt, webbed feet | • Amphibians live on land and in water. • Amphibians have webbed feet. • Frogs, toads and newts are amphibians. |  |
| 7 | • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • Working scientifically − Using their observations and ideas to suggest answers to questions. | By the end of this small step, children should be able to name a range of common reptiles and identify their features. Discussing different reptiles may naturally lead to discussing where they live. Some reptiles are land reptiles and some are aquatic reptiles. In this small step, children should provide an answer to the enquiry question for this block. They should be encouraged to draw on evidence from the previous small steps when forming an answer.• Provide children with images of a variety of reptiles. Ask them to identify the similarities and differences between different types of reptiles. Children could then start grouping the images of the reptiles in different ways. Suggestions are highlighted below. • Whether the reptiles live on land • Whether they have legs or not | • What features do reptiles have? • What reptile is this? • Is a a reptile? • What is similar about these two reptiles? • What is different about these reptiles? • Are there similarities between reptiles/mammals/birds/fish and amphibians? • What are the differences between reptiles/mammals/birds/ fish and amphibians? | Reptile, scales, lizard, crocodile, turtle | • Reptiles have dry skin. • Reptiles have scales on their bodies. • Lizards, snakes, crocodiles and turtles are reptiles |  |
| 8 | • Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets). • Working scientifically − Identifying and classifying. | This is a great opportunity to recap learning from the previous small steps in this block. Children should be encouraged to sort and group animals in different ways. They may initially need to be given predetermined categories for sorting and grouping animals. However, to extend learning allow children to choose their own ways of sorting and grouping• Place labels of each animal group around the room. Name or describe an animal and ask children to move to the label that the animal belongs to. • Pick a card with an animal on it but keep it to yourself. Children must guess the on the card by asking yes/no questions about its features. | • What animal is this? • What features do have? • How can you group these animals? • What is similar about these groups of animals? • What is different about these groups of animals? • What is similar about mammals/birds/fish/amphibians and reptiles? • What is different about mammals/birds/fish/amphibians and reptiles? • How do you know a is a ? | Mammal, bird, fish, amphibian, reptile | • There are different types of animals. • Animals have different features |  |
| 9 | • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. • Working scientifically − Identifying and classifying. | In this small step, children look at similarities and differences between different carnivores in terms of their characteristics. They may be familiar with some carnivores, such as lions, tigers, crocodiles and wolves. Provide opportunities to recap knowledge from previous small steps within this block by discussing what group of animals each carnivore belongs to.• Group images or small figures of animals based on whether they are carnivores or not. • Use five labels. **mammal bird fish amphibian reptile** Have a variety of different images of carnivores. Children should sort the carnivores based on what animal group they belong to | • What is a carnivore? • Is a a carnivore? How do you know? • What do carnivores eat? • What animals does a eat? • Do all carnivores live in the wild? How do you know? • Are there any pets that are carnivores? • What animal group does this carnivore belong to? • Are there any reptiles/birds/amphibians/fish that are carnivores? | Animal, carnivore, sharp teeth, wild animal, pet | • Some animals are carnivores. • Carnivores eat other animals. • Many carnivores have sharp teeth and claws |  |
| 10 | • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. • Working scientifically − Identifying and classifying | Children may already know some common herbivores, such as cows, horses, sheep and rabbits. Throughout this step, provide opportunities to recap knowledge from previous small steps within this block by discussing what group of animals each herbivore belongs to.Use five labels**. mammal bird fish amphibian reptile** Have a variety of different images of herbivorous animals. Children must sort the herbivores based on what animal group they belong to.Children can try some foods that a herbivore would eat. Would they rather be a herbivore or a carnivore? | • What is a herbivore? • Is a a herbivore? How do you know? • What do herbivores eat? • Do herbivores live in the wild? How do you know? • Are there any pets that are herbivores? • What animal group does this herbivore belong to? • Are there any reptiles that are herbivores? • Are there any birds that are herbivores? | Animal, herbivore, plants, vegetables. fruit | • Some animals are herbivores. • Herbivores eat plants including grass, fruits and vegetables. • Some herbivores eat seeds and nuts. • Herbivores have flat teeth for chewing plant |  |
| 11 | • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. • Working scientifically − Identifying and classifying. | Children may know some common omnivores such as bears, foxes, mice and hedgehogs. As children have now learnt about carnivores, herbivores and omnivores, provide opportunities for them to group animals based on their diet, as well as their animal type.• Create a large sorting station on the carpet. Use three hula hoops and create a label for carnivores, herbivores and omnivores | • What is an omnivore? • Is a an omnivore? How do you know? • What do omnivores eat? • Do omnivores live in the wild? How do you know? • Are there any pets that are omnivores? • What animal group does this omnivore belong to? • Are there any reptiles/birds that are omnivores? • Are there any amphibians/fish that are omnivores? | Omnivore, carnivore, herbivore, planta | • Omnivores eat other animals and plants. • Some animals are carnivores. • Some animals are herbivores. • Some animals are omnivores |  |
| 12 |  | End of unit assessment, complete and send scored to ND for monitoring,  |  |  |  |  |