**Year 2 Science Curriculum – Spring Term 2**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Theme: Growing up (animals and humans)** | | | | | | | | | |
| **Curriculum objectives** | | | **Vocabulary** | | | | | | **Links across the curriculum** |
| 1. To notice that animals, including humans, have offspring which grow into adults. 2. To find out about and describe the basic needs of animals, including humans, for survival (water, food and air). 3. To describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. | | | **Keyword** | **Definition** | **observe** | To look carefully at something, to notice what it is like or how it has changed; can involve all senses not just sight | | | **English:**  **Big Cat Babies** – Jonathan Angela Scott – baby and adult mammals: lions, leopards and cheetahs.  **Growing and Changing** – Teresa Heapy, Alan Baker – The changes that happen as our bodies grow from babies to children. |
| **record** | To draw or write what you observed or measured | **group** | To place objects, materials or living things into sets | | |
| **birth** | When a baby animals comes out of an egg or out of it’s mother | **identify** | To know and say what something is | | |
| **Hygiene/hygienic** | Being clean to stay healthy | **diagram** | A drawing that shows the parts of something or how the parts work together | | |
| **invertebrate** | An animal that has no internal backbone | **classify** | To group objects according to similarities in appearance or properties | | |
| **Life cycle** | The series of changes in the life of an animal from birth to death | **adult** | grown up animal | | |
| **amphibian** | an animal that lives in water or on land but must return to the water to reproduce | **bird** | an animal that has feathers and lays eggs with hard shells | | |
| **diet** | the kind of food an animal usually eats | **fish** | an animal that lives in water and has gills and fins | | |
| **insect** | a small six-legged animal with body in three parts and often with wings | **mammal** | an animal that is covered in hair or fur; the female gives birth to live young and feeds her babies on milk from her own body | | |
| **reptile** | an animal that has dry, scaly skin and lays eggs on land | **survive** | to stay alive | | |
| **vertebrate** | an animal that has an internal backbone |  |  | | |
| **Prior knowledge:***What specifically have pupils learned that is relevant to this unit that they are building upon?* | | | | | | | **Future knowledge:** *What specifically will pupils learn in the future that is relevant to this unit?* | | |
| Growing up (animals and human) is a Biology topic building on children's learning and experiences in the Early Years Foundation Stage and Year 1.  Children have previously learnt:   * About exploration of the natural world around them, making observations and drawing pictures of animals (EYFS framework; ELG The Natural World) * About animal (vertebrate) classification and structure (Year 1 Biology – Animals, including humans) * about parts of the human body (Year 1 Biology – Animals, including humans). | | | | | | | This prepares children for later learning:   * About nutrition and about skeletons and muscles in humans and other animals (Year 3 Biology – Animals, including humans) * About the human digestive system and teeth (Year 4 Biology – Animals, including humans) * About animal classification (Year 4 Biology – Living things and their habitats) | | |
| **Lesson Sequence** | | **Key Knowledge** | | | | | **Key Skills** | | |
| 1. ***How do animals change as they grow?*** | | Animals grow and change throughout their lives; this is referred to as a life cycle. There are five vertebrate groups (studied in Year 1) in the animal kingdom – amphibians, birds, reptiles, fish and mammals – which all have different life cycles to each other but, in the main, are born looking like a small version of the adult of their species, with the exception of amphibians. Insects are one of the many invertebrate groups, and they go through changes to a greater extent, including pupa and chrysalis stages. | | | | | **Working scientifically**  Skills children will learn, use, and develop   * Observing closely [using simple equipment]. * Identifying and classifying.   **Knowledge about science children will learn:**  They will develop an understanding of the following types of enquiry: identifying and classifying and observing over time.  They will learn that scientists build explanations about the natural world by making observations and collecting, analysing, and interpreting data to test their ideas, and that they identify links, patterns and relationships. | | |
| 1. ***What do animals need to survive?*** | | All animals need food, water and air for survival. Important needs for young humans are also love, medical care and toys. | | | | |
| 1. ***How can we sort food into groups?*** | | Food is one of the key needs for survival of all animals. Humans need to eat different types of food each day. This is represented by the Eatwell plate. | | | | |
| 1. ***How can humans stay clean?*** | | Keeping clean and hygienic is crucial for humans to stay healthy. This includes regular dental, hair, hand and whole-body hygiene activities. | | | | |
| 1. ***How can humans stay active?*** | | Young people should have at least 60 minutes of physical activity per day, including all physical activity such as playing at break times, walking to and from school and taking part in PE lessons and other organised sport. Good mental health is supported by regular physical activity and movement. | | | | |
| 1. ***How do humans stay healthy?*** | | A combination of varied and balanced diet, regular appropriate hygienic activity and at least 60 minutes per day of physical activity will lead to a healthy human at this age. | | | | |  | | |
| **Themes and links** | | | | | | | | | |
| **Themes (types of enquiry)** | **Where these are covered:** | | | | | | | **Links across the Science curriculum** | |
| **Observing closely (using simple equipment)** | Lesson 1  Can use simple scientific language to describe observations of change in animal life cycles (Lessons 1–5 if observing live animals in classroom)  Can identify and sequence change in two different vertebrate group animal life cycles. | | | | | | | |  |  | | --- | --- | | **EYFS** | To explore the natural world around them, making observations and drawing pictures of animals (EYFS framework; ELG The Natural World). | | **1** | To identifying and naming animals in their habitats.  To classifying vertebrates and invertebrates. | | **2** |  | | **3** | To identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.  To identify that humans and some other animals have skeletons and muscles for support, protection and movement. | | **4** |  | | **5** | To describe changes as humans, develop to old age.  To describe the life process of reproduction in humans. | | **6** | To identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.  To describe the ways in which nutrients and water are transported within animals, including humans.  To recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. | | |
| **Gathering and recording data to help in answering questions** | Lesson 2  Can say that animals need air, water and food to survive and describe what happens without them.  Can distinguish between ‘needs for survival’ and the kinds of ‘needs’ that help some animals to thrive but that are not essential for life.  Lessons 3 and 6  Can describe the importance of the right proportions of different food groups for humans, comparing the appropriate quantities of food from four different food groups.  Lessons 4 and 6  Can describe the importance of at least four different types of hygienic activity.  Lessons 5 and 6  Can describe the importance of daily physical activity and movement.  Can name some typical physical activity and say why it is important to move. | | | | | | |
| **Identifying and classifying** | Lesson 3  To can identify which food group individual food items belong to.  Lesson 1  Can place the life cycle of a human (or other animal) in chronological order  When prompted, can use a circle to show that the adults might, in turn, go on to produce young. | | | | | | |  | |