Key Stage 1

Year B

My Body

ORANGE TEXT = OBJECTIVES IN END OF KS1 TEACHERS ASSESSMENT FRAMEWORK

Pupils should be taught to Y1
☝ identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

Pupils should be taught to Y2
☝ 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.

Prior learning	**Future learning**
• Use all their senses in hands-on exploration of natural materials. (Nursery - Humans) • Name and describe people who are familiar to them. (Reception - Humans)	• 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. (Y3 - Animals, including humans) • Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. (Y6 - Animals, including humans)

Vocabulary	**Common Misconceptions**
• Head, body, eyes, ears, mouth, teeth, leg, • Parts of the body including those linked to PSHE teaching (see joint document produced by the ASE and PSHE Association https://www.pshe-association.org.uk/curriculum-and-resources/resources/briefing-human-development-and-reproduction) • Senses – touch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue Offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice, pasta)	• humans are not animals • respiration is breathing • breathing is respiration. ***Although we often use our fingers and hands to feel objects, the children should understand that we can feel with many parts of our body.***

Scientists
Florence Nightingale Pioneer of modern nursing in GB

Elizabeth Garrett Anderson - First British/ female physician and surgeon
Robert Winston Human Scientist

National Curriculum additional Notes Y1

Pupils should have plenty of opportunities to learn the names of the main body parts (including head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth) through games, actions, songs and rhymes. Pupils might work scientifically by: using their senses to compare different textures, sounds and smells.

National Curriculum additional Notes Y2

Pupils should be introduced to the basic needs of animals for survival, as well as the importance of exercise and nutrition for humans. They should also be introduced to the processes of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs. Growing into adults can include reference to baby, toddler, child, teenager, adult. Pupils might work scientifically by: observing, through video or first-hand observation and measurement, how different animals, including humans, grow; asking questions about what humans need to stay healthy; and suggesting ways to find answers to their questions.

Key Stage 1

Year B

Uses and properties of everyday materials Y2

ORANGE TEXT = OBJECTIVES IN END OF KS1 TEACHERS ASSESSMENT FRAMEWORK

Pupils should be taught to Y2
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.

Prior learning/YEAR A learning	**Future learning**
• Distinguish between an object and the material from which it is made. (Y1 - Everyday materials) • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials) • Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials) • Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 - Everyday materials)	• Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. (Y3 - Rocks) • Notice that some forces need contact between two objects, but magnetic forces can act at a distance. (Y3 - Forces and magnets) • Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. (Y5 - Properties and changes of materials) • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. (Y5 - Properties and changes of materials)

Vocabulary	**Common Misconceptions**
Names of materials – wood, metal, plastic, glass, brick, rock, paper, cardboard Properties of materials – as for Year 1 plus opaque, transparent and translucent, reflective, non-reflective, flexible, rigid Shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching	Some children may think: • only fabrics are materials • only building materials are materials • only writing materials are materials • the word rock describes an object rather than a material • solid is another word for hard.

Scientists

Charles Macintosh-Waterproof material (Standing on the Shoulders of Giants PSTT resource)

John MacAdam- Tarmac

National Curriculum additional Notes Y2

Pupils should identify and discuss the uses of different everyday materials so that they become familiar with how some materials are used for more than one thing (metal can be used for coins, cans, cars and table legs; wood can be used for matches, floors, and telegraph poles) or different materials are used for the same thing (spoons can be made from plastic, wood, metal, but not normally from glass). They should think about the properties of materials that make them suitable or unsuitable for particular purposes and they should be encouraged to think about unusual and creative uses for everyday materials. Pupils might find out about people who have developed useful new materials, for example John Dunlop, Charles Macintosh or John McAdam.

Pupils might work scientifically by: comparing the uses of everyday materials in and around the school with materials found in other places (at home, the journey to school, on visits, and in stories, rhymes and songs); observing closely, identifying and classifying the uses of different materials, and recording their observations.

Key Stage 1

Year B

Animals

ORANGE TEXT = OBJECTIVES IN END OF KS1 TEACHERS ASSESSMENT FRAMEWORK

Pupils should be taught to Y1
☝ identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals ☝ identify and name a variety of common animals that are carnivores, herbivores and omnivores ☝ describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)

Pupils should be taught to Y2
☝ 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)
☝ 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 micro-habitats

Prior learning/YEAR A learning	**Future learning**
• Explore and compare the differences between things that are living, dead, and things that have never been alive (YrA) • Describe how animals obtain their food from plants and other animals, using	• Explore and compare the differences between things that are living, dead, and things that have never been alive (YrA) • 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. (YrA) • 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 (YA) • Recognise that living things can be grouped in a variety of ways. (Y4 - Living things and their habitats)

the idea of a simple food chain, and identify and name different sources of food. (YA) • 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 (YA) • Observe changes across the four seasons.	• Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. (Y4 - Living things and their habitats) • Recognise that environments can change and that this can sometimes pose dangers to living things. (Y4 - Living things and their habitats) • Construct and interpret a variety of food chains, identifying producers, predators and prey. (Y4 - Animals, including humans) • Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. (Y6 - Living things and their habitats) • Give reasons for classifying plants and animals based on specific characteristics. (Y6 - Living things and their habitats)
Vocabulary • Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves • Names of animals experienced first-hand from each vertebrate group • Names of local habitats e.g. pond, woodland etc. • Names of micro-habitats e.g. under logs, in bushes etc.	**Common Misconceptions** Some children may think: • only four-legged mammals, such as pets, are animals • humans are not animals • insects are not animals • all 'bugs' or 'creepy crawlies', such as spiders, are part of the insect group • amphibians and reptiles are the same • an animal's habitat is like its 'home' • plants and seeds are not alive as they cannot be seen to move **ensure that they understand that carnivores eat other animals, not just meat**. **N.B.** *The children need to be able to name and identify a range of animals in each group e.g. name specific birds and fish. They do not need to use the terms mammal, reptiles etc. or know the key characteristics of each, although they will probably be able to identify birds and fish, based on their characteristics.*
Scientists Liz Bonnin Conservationist Chris Packham-Animal Conservationist	

National Curriculum additional Notes Y1 Pupils should use the local environment throughout the year to explore and answer questions about animals in their habitat. They should understand how to take care of animals taken from their local environment and the need to return them safely after study. Pupils should become familiar with the common names of some fish, amphibians, reptiles, birds and mammals, including those that are kept as pets. Pupils might work scientifically by: using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; grouping animals according to what they eat; and using their senses to compare different textures, sounds and smells.

National Curriculum additional Notes Y2 Pupils should be introduced to the basic needs of animals for survival, as well as the importance of exercise and nutrition for humans. They should also be introduced to the processes of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs. The following examples might be used: egg, chick, chicken; egg, caterpillar, pupa, butterfly; spawn, tadpole, frog; lamb, sheep. Pupils might work scientifically by: observing, through video or first-hand observation and measurement, how different animals, grow; asking questions about what things animals need for survival and suggesting ways to find answers to their questions.

Pupils should be introduced to the idea that all living things have certain characteristics that are essential for keeping them alive and healthy. They should raise and answer questions that help them to become familiar with the life processes that are common to all living things. Pupils should be introduced to the terms 'habitat' (a natural environment or home of a variety of plants and animals) and 'micro-habitat' (a very small habitat, for example for woodlice under stones, logs or leaf litter). They should raise and answer questions about the local environment that help them to identify and study a variety of plants and animals within their habitat and observe how living things depend on each other, for example, plants serving as a source of food and shelter for animals. Pupils should compare animals in familiar habitats with animals found in less familiar habitats, for example, on the seashore, in woodland, in the ocean, in the rainforest.

Pupils might work scientifically by: sorting and classifying things and recording their findings using charts. They should describe how they decided where to place things, They could describe the conditions in different habitats and micro-habitats (under log, on stony path, under bushes) and find out how the conditions affect the number and type(s) of plants and animals that live there.

Key Stage 1

Year A/**B**

Seasonal Changes

ORANGE TEXT = OBJECTIVES IN END OF KS1 TEACHERS ASSESSMENT FRAMEWORK

Pupils should be taught to Y1
👍 observe changes across the four seasons 👍 observe and describe weather associated with the seasons and how day length varies. TAF : Describe seasonal changes

Prior learning	**Future learning**
• Understand the key features of the life cycle of a plant and an animal. (Nursery – Plants & Animals, excluding humans) • Explore the natural world around them. (Reception – Seasonal changes) • Describe what they see, hear and feel whilst outside. (Reception – Seasonal changes) • Understand the effect of changing seasons on the natural world around them. (Reception – Seasonal changes)	• Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (Y3 - Light) • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky. (Y5 - Earth and space) • The seasons and the Earth's tilt, day length at different times of year, in different hemispheres. (KS3)
Vocabulary • Weather (sunny, rainy, windy, snowy etc.) • Seasons (winter, summer, spring, autumn) • Sun, sunrise, sunset, day length	**Common Misconceptions** Some children may think: • it always snows in winter • it is always sunny in the summer • there are only flowers in spring and summer • it rains most in the winter.
Scientists Dr Steve Lyons (Extreme Weather) Holly Green (Meteorologist)	

National Curriculum additional Notes Y1

Pupils should observe and talk about changes in the weather and the seasons.

Note: Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses.

Pupils might work scientifically by: making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change.

Key Stage 1

Year B

Sound exploration unit

(Non-statutory)

Refer to: Discovery Dog – Noisy Night

Tom Robson – Scintillating Sounds

Working Scientifically KS1

During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions.