Year 1 Science Curriculum

Topics

1. Plants
2. Animals
3. Humans
4. Materials
5. Seasons

Key

Observing over time
Identifying and classifying
Pattern seeking
Research from a secondary source
Fair testing

Cross curricular

Websites

Explorify – www.explorify.wellcome.ac.uk

TigTag – www.tigtagworld.co.uk

Y1 Plants

1. identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
2. identify and describe the basic structure of a variety of common flowering plants, including trees

	Assessment guidance	Key learning	Possible 'I can' statements
SECURE	Shows understanding of a concept using scientific vocabulary correctly	• Growing locally there will be a vast array of plants which all have specific names. These can be identified by looking at the key characteristics of the plant. • Plants have common parts but they vary between the different types of plants. Some trees keep their leaves all year whilst other trees drop their leaves during autumn and grow them again during spring. **Key vocabulary** Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud Names of trees in the local area Names of garden and wild flowering plants in the local area	• I can name trees and other plants that they see regularly. • I can describe some of the key features of these trees and plants. (e.g. the shape of the leaves, the colour of the flower/blossom) • I can point out trees which lost their leaves and those that kept them the whole year. • I can point to and name the parts of a plant, recognising that they are not always the same. (e.g. leaves and stems may not be green)
	Applying knowledge in familiar related contexts, including a range of enquiries	• Make close observations of leaves, seeds, flowers etc. • Compare two leaves, seeds, flowers etc. • Classify leaves, seeds, flowers etc. using a range of characteristics • Identify plants by matching them to named images • Make observations of how plants change over a period of time • When further afield, spot plants that are the same as those in the local area studied regularly, describing the key features that helped them	I can sort and group parts of plants using similarities and differences I can collect information on features that change during the year. I can use photographs to talk about how plants change over time. I can discover similar plants that grow elsewhere from…books/internet. I can use simple charts to identify plants I can create a list of plants that I can find within school I can draw a flower using their key characteristics

Y1 Animals – see next sheet for human statement

1. identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
2. identify and name a variety of common animals that are carnivores, herbivores and omnivores
3. describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)

	Assessment guidance	Key learning	Possible 'I can' statements
SECURE	Shows understanding of a concept using scientific vocabulary correctly	• Animals vary in many ways having different structures e.g. wings, tails, ears etc. They also have different skin coverings e.g. scales, feathers, hair. These key features can be used to identify them. • Animals eat certain things - some eat other animals, some eat plants, some eat both plants and animals. **Key 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 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 The children also do not need to use the words carnivore, herbivore and omnivore. If they do, ensure that they understand that carnivores eat other animals not just meat.	• I can name a range of animals which includes animals from each of the vertebrate groups • I can describe the key features of these named animals • I can label key features on a picture/diagram • I can write descriptively about an animal • I can write a What am I? riddle about an animal • I can describe what a range of animals eat
	Applying knowledge in familiar related contexts, including a range of enquiries	• Make first hand close observations of animals from each of the groups • Compare two animals from the same or different group • Classify animals using a range of features • Identify animals by matching them to named images • Classify animals according to what they eat	I can sort and group animals using similarities and differences I can use simple charts etc. to identify unknown animals I can use secondary resources to find out what animals eat, including talking to experts e.g. pet owners, zoo keepers etc. I can create a drawing of an imaginary animal labelling its key features.

Y1 Humans – see previous sheet for animal statements

4. identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense

	Assessment guidance	Key learning	Possible 'I can' statements
SECURE	Shows understanding of a concept using scientific vocabulary correctly	• Humans have keys parts in common, but these vary from person to person. Humans (and other animals) find out about the world using their senses. Humans have five senses – sight, touch, taste, hearing and smelling. These senses are linked to particular parts of the body. **Key vocabulary** Parts of the body including those linked to PSHE teaching (see joint document produced by the ASE and PSHE association) Senses, touch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue	I can play and lead 'Simon says'. During PE lessons, can follow instructions involving parts of the body I can label parts of the body on pictures and diagrams I can explore objects using different senses
	Applying knowledge in familiar related contexts, including a range of enquiries	• Make first hand close observations of parts of the body e.g. hands, eyes • Compare two people • Take measurements of parts of their body • Compare parts of their own body • Look for patterns between people e.g. Do people with big hands have big feet? • Classify people according to their features • Investigate human senses e.g. Which part of my body is good for feeling, which is not? • Which food/flavours can I identify by taste? • Which smells can I match?	Can talk about their findings from investigations using appropriate vocabulary 'My fingers are much better at feeling than my toes' I can use first-hand close observations to make detailed drawings. Can name body parts correctly when talking about measurements and comparisons 'My arm is x straws long.' 'My arm is x straws long and my leg is y straws long. My leg is longer than my arm.' 'We both have hands, but his are bigger than mine.'

Y1 Everyday materials

1. distinguish between an object and the material from which it is made
2. identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
3. describe the simple physical properties of a variety of everyday materials
4. compare and group together a variety of everyday materials on the basis of their simple physical properties

	Assessment guidance	Key learning	Possible 'I can' statements
SECURE	Shows understanding of a concept using scientific vocabulary correctly	• All objects are made of one or more materials. Some objects can be made from different materials e.g. plastic, metal or wooden spoons. • Materials can be described by their properties e.g. shiny, stretchy, rough etc. Some materials e.g. plastic can be in different forms with very different properties. **Key vocabulary** Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see through, not see through	I can label a picture or diagram of an object made from different materials I can describe the properties of different materials
	Applying knowledge in familiar related contexts, including a range of enquiries	• Classify objects made of one material in different ways e.g. a group of object made of metal • Classify in different ways one type of object made from a range of materials e.g. a collection of spoons made of different materials • Classify materials based on their properties • Test the properties of objects e.g. absorbency of cloths, strength of party hats made of different papers, stiffness of paper plates, waterproofness of shelters	I can sort objects and materials using a range of properties I can choose an appropriate method for testing an object for a particular property I can use the test evidence to answer the questions about properties e.g. Which cloth is the most absorbent? I can make a list of the materials I have found. I can make signs to stick onto materials to teach other people about their properties.

Y1 Seasonal Change

1. observe changes across the four seasons
2. observe and describe weather associated with the seasons and how day length varies

	Assessment guidance	Key learning	Possible 'I can' statements
SECURE	Shows understanding of a concept using scientific vocabulary correctly	• In the UK, the day length is longest at mid-summer (about 16 hours) and gets shorter each day until mid-winter (about 8 hours) before getting longer again. • The weather also changes with the seasons. In the UK, it is usually colder and rainier in Winter and hotter and dryer in the Summer. • The change in weather causes many other changes; some examples are numbers of minibeasts found outside, seed and plant growth, leaves on trees and type of clothes worn by people. **Key vocabulary** Weather (sunny, rainy, windy, snowy etc.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length	I can name the four seasons and identify when in the year they occur. I can describe weather in different seasons over a year. I can describe days as being longer (in time) in the summer and shorter in the winter. I can describe other features that change through the year
	Applying knowledge in familiar related contexts, including a range of enquiries	• Collect information about the weather regularly throughout the year • Present this information in table and charts to compare the weather across the seasons • Collect information, regularly throughout the year, of features that change with the seasons e.g. plants, animals, humans • Present this information in different ways to compare the seasons • Gather data about day length regularly throughout the year and present this to compare the seasons	I can use evidence gathered to describe the general types of weather and changes in day length over the seasons. I can use evidence to describe some other features of their surroundings, themselves, animals, plants that change over the seasons I can create seasonal art work.  I can write seasonal poetry.