


Progression of Science Objectives - Biology

Biology	Year 1 (Sum 1&2) Identify, name and describe plants.	Year 2 (Sum 1&2) Seeds and bulbs	Year 3 (Sum 1) Life & growth; function & life cycle
<p style="text-align: center; font-weight: bold; margin: 0;">Plants</p> 	<ul style="list-style-type: none"> - Discuss what a plant seed is and what it grows into. -Plant a seed (flowering plants and vegetables) and observe the changes in the plant over time. -Label and describe the petals, stem, leaf and root of a plant. -Identify and name common garden and wild plants. -Compare and contrast two different common and wild plants. -Describe how the growth of a plant changes over time. -Compare and contrast two different plants that provide food. -Discuss how the seeds planted have changed. -Compare and contrast how different plants change over time. <p>Trees</p> <ul style="list-style-type: none"> -Identify and label the roots, trunk, branches and leaves of a tree. -Identify and name some evergreen and deciduous trees. -Record how a deciduous tree has changed over time. -Compare and contrast two different deciduous trees. -Identify and describe the main differences between evergreen and deciduous trees. -Compare and contrast how plants and trees change over time. 	<ul style="list-style-type: none"> -Plant a variety of seeds and bulbs to investigate their growth. -Predict how the seeds and bulbs will grow. -Explore what bulbs need to grow into mature plants. -Observe and describe how the growth in different plants changes over time. -Observe and describe the early growth points in a variety of plants. -Compare the early growth points in two or more plants. -Observe the life cycle of a dandelion. -Learn about the life cycle of a variety of plants. -Describe the basic stages for a plant's life cycle. -Evaluate and conclude the growth of plants with different conditions. -Find out and describe how plants need water, light and warmth to grow well. -Investigate how plants need: water, light and warmth for growth. -Record how the height of a plant changes over time. -Find out about the different needs for different types of plants. -Compare and contrast how some plants grow better in different conditions. 	<ul style="list-style-type: none"> -Identify and describe the functions of the roots, stem, leaves and flowers for flowering plants. -Learn how seeds are formed and dispersed. -Explore how seeds are dispersed in a variety of plants, fruit and trees. -Explore how pollination in flowers happens. -Identify and describe the part that flowers play in the life cycle of flowering plants. -Explore and explain what plants need to survive. -Compare and contrast the requirements of plants for life and growth in different types of plants. -Investigate how much light and water plants need. -Investigate the way in which water is transported within different plants.

Biology

Living things & their habitats



Year 2 (Aut 1) Differences in living/dead; living things in habitats

- Find out what different habitats provide.
- Identify and name a variety of plants and animals in their habitats, including micro-habitats.
- Identify that most living things live in habitats to which they are suited.
- Describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.
- Identify, name and describe different sources of food for animals.
- Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain.
- Explore and compare the differences between living, dead, and things that have never been alive.

Year 4 (Spr 1) Classifications

- Investigate how a habitat changes throughout the year.
- Group animals according to whether they are fish, amphibians, reptiles, birds or mammals.
- Describe common similarities and differences for fish, amphibians, reptiles, birds or mammals.
- Identify whether an animal is a vertebrate or an invertebrate.
- Explore and use a classification key to identify vertebrates and invertebrates.
- Use a classification key to identify familiar: animal and plant based organisms.
- Research and explain the reasons for deforestation and its negative effects on the environment.
- Research and explain the positive impact nature reserves have on the environment.

Year 5 (Sum 2) Life cycles & Reproductions

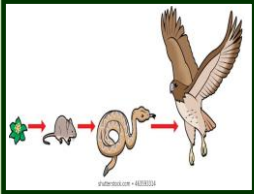
- Name and label the reproductive parts (stamen, stigma, ovary, ovule, sepal, anther, filament and petal) of a flower.
- Explore how to grow new plants from different parts of the parent plant, for example, seeds, stem and root cuttings, tubers, bulbs.
- Describe and explain how flowering plants reproduce.
- Find out about different types of reproduction, including sexual and asexual reproduction in plants.
- Compare the life cycles of plants in different parts of the world.
- Compare and describe the differences in life cycles between a mammal and an amphibian.
- Compare and describe the differences in life cycles between a birds and insects.
- Describe the life process of reproduction in some animals.
- Compare how different animals reproduce and grow.

Year 6 (Aut 1) Classify into broad groups

- Learn how Carl Linnaeus developed a classification system.
- Learn how broad groups: micro-organisms, plants and animals can be subdivided.
- Describe how living things are classified into broad groups based on observable characteristics; similarities and differences.
- Create an animal classification system with a key whilst explaining reasons why.
- Classify animals as vertebrates and invertebrates into broad groups in the local area, describing reasons why.
- Create a plant classification system with a key whilst explaining reasons why.
- Classify plants and trees into broad groups in the local area based on similarities and difference, whilst giving reasons why
- Learn about microorganisms.
- Identify and describe microorganisms (fungus) in the local area.
- Classify micro-organisms in the local area into broad groups based on similarities and differences.
- Investigate the best conditions for fungus (Micro-organism) to thrive

Biology

Animals including humans



	Year 1 (Spr1/2) Identify common animals; carnivores/herbivores	Year 2 (Spr1/2) Offspring, basic needs, exercise, food & Hygiene	Year 3 (Sum2) Nutrition & Skeletal system	Year4 (Au/Su1) Digestive system; food chains	Year 5 (Sum 1) Changes through age	Year 6 (Spr1) Circulatory system
<p>Humans</p> <ul style="list-style-type: none"> -Identify, draw and label the basic parts of the human body. -Learn about the five senses and how we use them. -identify, draw and Label which sense is associated with which body part. <p>Animals</p> <ul style="list-style-type: none"> -Identify and name a variety of common animals in their habitats. -Compare the appearance of common animals, fish, birds, amphibians, reptiles and mammals. -Identify and sort fish, birds, mammals, reptiles and amphibians. -Identify and understand what birds, mammals, reptiles, fish and amphibian are -Describe and compare the structure of different birds, mammals, reptiles, fish and amphibians. -explore what animals eat certain type of food. -compare and contrast animals according to what they eat. 	<p>Humans</p> <ul style="list-style-type: none"> -Find out about and describe the basic needs of humans, for survival (water, food and air). -Describe the importance of eating the right types of and amounts of food. -Describe the importance of hygiene. -Describe the importance of exercise. -Explore how my body reacts to exercise over time. -Notice that humans have offspring which grow into adults. -Name the different stages of growing up. <p>Animals</p> <ul style="list-style-type: none"> -Notice that animals have offspring which grow into adults. -Name the stages development. -Find out about the life cycle of a chicken. -Find out about the life cycle of different animals. 	<p>Humans</p> <ul style="list-style-type: none"> -Explain how humans get the right amount of nutrition. -Explain the functions of the human skeleton and identify the main bones. -Identify and explain the functions of the main muscles in humans. <p>Animals</p> <ul style="list-style-type: none"> -Identify what food animals eat and why. -Identify bones in animals. -Identify which type of skeleton an animal has and why. <p>Humans and animals</p> <ul style="list-style-type: none"> -Identify that animals, including humans, need the right types and amount of nutrition. -Compare and contrast the diets of humans and some animals. -Compare the bones and functions in humans and animals. -Compare the muscles in humans and animals. 	<p>Humans</p> <ul style="list-style-type: none"> -Identify the different types of teeth in humans and their simple functions. -Identify and compare different types of teeth in humans and animals and explain their functions. -Explain the structure of a tooth. -Explain how we can look after our teeth. -Investigate how different foods and liquids harm our teeth. -Explain the functions of the mouth and tongue. -Identify and locate the main organs of the human digestive system. -Explain how the human digestive system works. <p>Animals</p> <ul style="list-style-type: none"> -Explain what an organism is. -Find out about consumers and producers. -Produce a simple food chain. -Identify/describe predators / prey. -Explain why some predators are attracted to different prey. -Explore producers, predators and prey in the local area. -Construct a variety of food chains, identifying producers, predators and prey. -Interpret a variety of food chains, identifying producers, predators and prey. 	<p>Humans</p> <ul style="list-style-type: none"> -Learn about the gestation periods in humans and animals. -Compare the gestation periods in animals and humans. -Learn how the foetus develops in humans. -Compare foetus development in humans and animals. -Explore how the length and mass of a baby changes as it grows. -Explain and describe the stages of child development. -Create a timeline of child development. -Describe and explain the effects of puberty on children. -Explain the differences between the bodies of men and women. -Explain some of the difficulties involved with old age. -Describe the changes as humans develop to old age -Create a timeline of the main stages of human growth. 	<p>Humans</p> <ul style="list-style-type: none"> -Describe the functions of the heart, blood vessels and blood. -Identify, name and describe the main parts of the human circulatory system. -Describe the ways in which nutrients and water are transported within animals, including humans. -Recognise the impact of diet on the way the body functions. -Recognise the impact of exercise on the way the body functions. -Recognise the impact of drugs and lifestyle on the way the body functions. 	

