

SPRING HILL SCIENCE CURRICULUM-

EYFS

SPRING

Understanding the World-
The Natural World

Habitats

Focus: Animals have homes.
Woodland animals and Woodland habitat.

Life Cycle of a Butterfly

Focus: living things, growth and simple life
cycles

SUMMER

Understanding the World-
The Natural World

Plants and Growing

Focus: growth, plants, environments

Consolidation: Comparing Seasons,
Senses & Living Things

Focus: bringing all knowledge together;
explaining natural phenomena

AUTUMN

Understanding the World-
The Natural World

All About Me

Focus: Similarities and differences
between children in class.

Changing States of Matter

Focus: Baking



SPRING HILL SCIENCE CURRICULUM- YEAR 1



AUTUMN 1

How do seasonal changes affect trees, weather, and daylight hours?

Lesson 1:

To identify different types of weather.

Lesson 2:

To identify how the weather changes across the four seasons.

Lesson 3:

To recognise how trees change across the four seasons

Lesson 4:

To recognise that daylight hours change across the four seasons.

Lesson 5:

To use equipment to record and measure the weather.

SPRING 1

What do we use our senses for?

Lesson 1:

To name parts of the human body.

Lesson 2:

To name the body parts used for each sense.

Lesson 3:

To identify the body parts used for the sense of taste and touch.

Lesson 4:

To identify the body parts used for the sense of smell and sight.

Lesson 5:

To identify the body part used for the sense of hearing.

SUMMER 1

How do plants grow and what do their parts do?

Lesson 1

To identify plants in the school grounds.

Lesson 2:

To identify parts of a flowering plant.

Lesson 3:

To identify and name wild and garden plants.

Lesson 4:

To identify and name deciduous and evergreen trees

Lesson 5:

To recognise that new plants come from seeds and bulbs.

SPRING HILL SCIENCE CURRICULUM-

YEAR 1



AUTUMN 2

How are materials different?

Lesson 1:

To identify everyday materials.

Lesson 2:

To recognise the difference between objects and materials.

Lesson 3:

To describe the properties of materials.

Lesson 4:

To group materials based on their properties (absorbency).

Lesson 5:

To group materials based on their properties (waterproofness).

SPRING 2

Are all animals the same?

Lesson 1:

To identify and group animals.

Lesson 2:

To describe a variety of animals.

Lesson 3:

To compare the features of animals.

Lesson 4:

To identify animals that are carnivores, herbivores and omnivores.

Lesson 5:

To describe and compare the structure of animals.

SUMMER 2

Science through stories

(This unit revisits and reinforces prior knowledge to prepare children for Year 2 science learning)

Lesson 1:

To observe changes across the seasons.

Lesson 2:

To describe and compare the features of animals.

Lesson 3:

To identify differences in animal features.

Lesson 4:

To describe the properties of everyday materials.

Lesson 5:

To identify animals that are carnivores, herbivores and omnivores.

SPRING HILL SCIENCE CURRICULUM-

YEAR 2



AUTUMN 1

What is a habitat?

Lesson 1:

To identify some of the characteristics of living things.

Lesson 2:

To recognise the difference between things that are alive, were once alive or have never been alive.

Lesson 3:

To identify plants and animals in different habitats.

Lesson 4:

To identify how a habitat provides animals and plants with what they need to survive.

Lesson 5:

To recognise how animals and plants depend on each other.

SPRING 1

Why are different materials used for different purposes?

Lesson 1:

To recognise that objects are made from materials that suit their uses.

Lesson 2:

To recognise that objects are made from materials that suit their uses.

Lesson 3:

To recognise that the shape of some solid objects can be changed.

Lesson 4:

To compare the suitability of materials for particular uses.

Lesson 5:

To recognise that the strength of some materials can be changed.

SUMMER 1

How do plants germinate and grow?

Lesson 1:

To recognise that seeds need certain conditions for growth.

Lesson 2:

To recognise that seeds and bulbs contain what they need to grow into a plant.

Lesson 3:

To describe what seeds need to germinate.

Lesson 4:

To describe the effect of light on plant growth.

Lesson 5:

To identify stages of a plant's life cycle.

SPRING HILL SCIENCE CURRICULUM-

YEAR 2



AUTUMN 2

Where do minibeasts live?

Lesson 1:

To classify a variety of minibeasts.

Lesson 2:

To recognise that living things live in habitats to which they are suited.

Lesson 3:

To learn about the conditions in which minibeast might live.

Lesson 4:

To learn about the conditions in which minibeast might live.

Lesson 5:

To identify micro habitats around school.

SPRING 2

What do animals and humans need to survive?

Lesson 1

To identify different stages of the human life cycle.

Lesson 2:

To know which offspring come from which parent animal.

Lesson 3:

To observe and measure growth in humans.

Lesson 4:

To identify and list the basic needs for survival for humans and animals.

Lesson 5:

To recognise the importance of exercise and personal hygiene.

SUMMER 2

Recap and Revise all Year 2 units

Lesson 1:

To describe how materials can be reused.

Lesson 2:

To identify human-made and natural materials.

Lesson 3:

To identify suitable materials based on their properties.

Lesson 4:

To identify a material to help plant growth.

Lesson 5:

To choose materials to create a suitable plant pot.

SPRING HILL SCIENCE CURRICULUM-

YEAR 3



AUTUMN 1

What are bones and muscles for and how do we keep them healthy?

Lesson 1:

To explain the role of a skeleton

Lesson 2:

To recognise the main bones in the body.

Lesson 3:

To explain how muscles are used for movement.

Lesson 4:

To explain how food is an essential energy source for animals.

Lesson 5:

To identify the main nutrient groups and their simple functions and how this contributes to a balanced diet.

SPRING 1

How are rocks and fossils formed?

Lesson 1

To group rocks using their appearance.

Lesson 2:

To group rocks using their physical properties.

Lesson 3:

To describe in simple terms how fossils are formed.

Lesson 4:

To compare soils and how they were formed

Lesson 5:

To describe a soil sample using sedimentation

SUMMER 1

What are the functions of a flowering plant?

Lesson 1:

Identify what a plant needs to grow and survive.

Lesson 2:

To identify and describe the functions of different parts of a flowering plant.

Lesson 3:

To investigate how water is transported in plants.

Lesson 4:

To explore the role of a flower in the life cycle of a plant .

Lesson 5:

To explore seed dispersal methods.

SPRING HILL SCIENCE CURRICULUM-

YEAR 3



AUTUMN 2

What type of forces are there?

Lesson 1:

To describe the effects of contact forces.

Lesson 2:

To interpret how and why things move differently on different surfaces.

Lesson 3:

To describe the effects of magnets.

Lesson 4:

To compare the properties of different types of magnets.

Lesson 5:

To explain the uses of magnets.

SPRING 2

How are shadows made?

Lesson 1:

To explain the role of light sources.

Lesson 2:

To compare light reflecting on different surfaces.

Lesson 3:

To recognise which materials cast a shadow.

Lesson 4:

To know how shadows change throughout the day.

Lesson 5:

To investigate how the distance of the light source affects the size of its shadow.

SUMMER 2

Recap and Revise Year 3 Units

Lesson 1:

To revise the units Movement and nutrition and Rocks and soil.

Lesson 2:

To revise the units *Movement and nutrition* and *Plant reproduction*.

Lesson 3:

To revise the unit *Forces and magnets*.

Lesson 4:

To revise the unit *Uses of materials*.

Lesson 5:

To revise the units Light and shadows and Movement and nutrition.

SPRING HILL SCIENCE CURRICULUM-

YEAR 4



AUTUMN 1

How does the digestive system work?

Lesson 1:

To describe the function of the human digestive system.

Lesson 2:

To recognise the different types of human teeth and their roles in eating. (including basic tooth care)

Lesson 3:

To recognise that differences in teeth relate to an animal's diet.

Lesson 4

To begin to understand what a food chain is .

Lesson 5:

To understand the role of producers, predators and pray in food chains .

SPRING 1

What happens to materials when they are heated or cooled?

Lesson 1:

To identify solids using their properties.

Lesson 2:

To identify liquids and gases using their properties.

Lesson 3:

To describe melting and freezing and record observations of the differences in these processes.

Lesson 4:

To describe what happens during condensing and evaporating.

Lesson 5:

To describe the different stages of the water cycle.

SUMMER 1

How can we group living things?

Lesson 1

To recognise that living things can be grouped in a variety of ways.

Lesson 2:

To group plants in various ways.

Lesson 3:

To use and make classification keys.

Lesson 4:

To recognise and describe different habitats and their inhabitants.

Lesson 5:

To recognise that environments can change and that this can pose dangers to living things.

SPRING HILL SCIENCE CURRICULUM-

YEAR 4



AUTUMN 2

How does an electric circuit work?

Lesson 1

To identify common appliances that run on electricity.

Lesson 2:

To know construct a simple series electrical circuit.

Lesson 3:

To explain the use of switches in a circuit.

Lesson 4:

To explain the use of materials as electrical conductors or insulators.

Lesson 5:

To investigate what affects bulb brightness.

SPRING 2

How are sounds made and how does sound travel?

Lesson 1:

To identify how sounds are made by vibrations .

Lesson 2:

To describe how sounds are heard through different mediums.

Lesson 3:

To describe the relationship between vibration strength and volume.

Lesson 4:

To describe the relationship between volume and distance.

Lesson 5:

To describe pitch and how to change it.

SUMMER 2

Recap and Revise Year 4 Units

Lesson 1:

To revise the units States of matter and Classification and changing habitats.

Lesson 2:

To revise the unit *Electricity and circuits*.

Lesson 3:

To revise the units *States of matter* and *Sound and vibrations*.

Lesson 4:

To revise the unit *Digestion and food*.

Lesson 5

To revise the unit *States of matter*.

SPRING HILL SCIENCE CURRICULUM-

YEAR 5



AUTUMN 1

How do we separate mixtures using filtering, sieving and evaporating?

Lesson 1:

To know what a mixture is and be able to name some.

Lesson 2:

To explain the process of sieving and describe how it can be used to separate a mixture.

Lesson 3:

To explain the process of filtering and describe how it can be used separate a mixture.

Lesson 4:

To know that some materials dissolve in a liquid to form a solution. .

Lesson 5:

To identify which factors, affect the time taken to dissolve.

Lesson 6:

To describe the process of evaporation.

SPRING 1

Why do we have day and night, and how does the Earth move?

Lesson 1:

To recognise that the Sun, Earth and Moon are round (spherical).

Lesson 2:

To describe the movement of the Earth and other planets around the Sun.

Lesson 3:

To explain the movement of the Moon relative to the Earth

Lesson 4:

To understand how the rotation of the Earth causes day and night.

Lesson 5:

To describe the apparent movement of the Sun across the sky and link it to the Earth's rotation.

SUMMER 1

Are all forces balanced?

Lesson 1:

To describe gravity and its effects.

Lesson 2:

To describe air resistance and its effects.

Lesson 3:

To describe water resistance and its effects.#

Lesson 4:

To describe friction and its effects.

Lesson 5:

To describe the effects of levers, pulleys and simple machines on movement.

SPRING HILL SCIENCE CURRICULUM-

YEAR 5



AUTUMN 2

What are reversible and irreversible changes?

Lesson 1:

To determine the hardness of materials and link this to their uses.

Lesson 2:

To determine the transparency of different materials and link this to their uses.

Lesson 3:

To determine the conductivity of different materials and link this to their uses.

Lesson 4:

To demonstrate reversible changes.

Lesson 5:

To demonstrate irreversible changes.

SPRING 2

What are the life cycles of different types of animals?

Lesson 1:

To describe the life cycle of a plant, including the reproductive stage.

Lesson 2:

To describe the life cycle of a mammal.

Lesson 3:

To describe the life cycle of a bird and compare it with that of a mammal.

Lesson 4:

To describe the life cycle of an amphibian.

Lesson 5:

To describe the life cycle of an insect and compare it with that of an amphibian.

SUMMER 2

How do we change as we grow older?

Lesson 1:

To describe how humans change from babies through to old age.

Lesson 2:

To identify changes in males and females as a result of puberty.

Lesson 3:

To explore the gestation periods of humans and other animals.

Recap and Revise Year 5 units

Lesson 1:

To revise the units Earth and space and Life cycles and reproduction.

Lesson 2:

To revise the units Unbalanced forces and Mixtures and separation.

Lesson 3:

To revise the units *Separating mixtures* and *Unbalanced forces*.

SPRING HILL SCIENCE CURRICULUM-

YEAR 6



AUTUMN 1

How do we classify living things?

Lesson 1:

To explain how organisms are classified using the Linnaean system.

Lesson 2:

To classify the cold-blooded vertebrate groups using their common characteristics.

Lesson 3:

To classify the warm-blooded vertebrate groups using their common characteristics.

Lesson 4:

To classify invertebrates using their characteristics.

Lesson 5:

To describe how the plant kingdom is organized (based on shared characteristics).

SPRING 1

Why do living things vary, and how does this affect their survival?

Lesson 1:

To explain why there are differences within a species.

Lesson 2:

To recognise the inheritance of characteristics in plants and animals.

Lesson 3:

To explain why adaptation is necessary.

Lesson 4:

To model how natural selection affects population size.

Lesson 5:

To describe the theory of evolution and recognise the evidence for it.

SUMMER 1

What is the job circulatory system in the human body?

Lesson 1:

To identify factors that affect our health and how to reduce their negative impact.

Lesson 2:

To summarise the key structures and purpose of the circulatory system.

Lesson 3:

To identify the key roles of blood.

Lesson 4:

To investigate the relationship between exercise and heart rate.

Lesson 5:

To describe the relationship between heart rate and fitness.

SPRING HILL SCIENCE CURRICULUM-

YEAR 6



AUTUMN 2

What does light teach us about reflection?

Lesson 1:

To compare sources of light and describe how light travels .

Lesson 2:

To describe how the eye works..

Lesson 3:

To know that light travels in straight lines and why shadows have the same shape as the objects that cast them .

Lesson 4:

To investigate what affects the angle of the reflected ray.

Lesson 5:

To explain how a periscope works.

SPRING 2

How do circuits, batteries and switches work together?

Lesson 1:

To explain how increasing voltage affects the brightness of a lamp.

Lesson 2:

To describe and explain how the number of cells affects the volume of a buzzer.

Lesson 3:

To explain why adding more components can change the brightness of a bulb.

Lesson 4:

To suggest and explain ways to make a bulb brighter in a circuit.

Lesson 5:

To draw and interpret circuit diagrams using recognised symbols, including the effect of open and closed switches.

SUMMER 2

Recap and Revise Year 6 Units?

Lesson 1:

To revise the units Circulation and health and Light and reflection.

Lesson 2:

To revise the units Light and reflection and Circuits, batteries and switches.

Lesson 3:

To revise the units *Light and reflection* and *Circulation and health*.

Lesson 4:

To revise the units *Classifying big and small*, *Evolution and inheritance*, *Light and reflection* and *Circulation and health*.

Lesson 5:

To revise the units Light and reflection and Circulation and health.