Curriculum: Forest School

EYFS					
TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6
Discover and explore	Discover and explore	Discover and explore	Discover and explore	Discover and explore	Discover and explore

YEAR 1					
TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6
				Summer Discover and explore	

YEAR 2					
TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6
					Summer Discover and explore

YEAR 3					
TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6
			Spring Explore and conserve		

YEAR 4					
TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6
	Autumn Explore and conserve				

YEAR 5					
TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6
		Spring Conserve and share			

YEAR 6					
TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6
Autumn Conserve and share					

Curriculum Vision: Forest School

The aim of the Forest School curriculum at Sandgate Primary is to ensure that every child will experience learning through the natural world as part of their development. Our head, heart and hands approach aims to develop a child holistically and encourages transformative learning. Transformative learning involves teaching and learning geared to motivate and empower happy and healthy learners to take informed decisions and actions at the individual, community and global levels.

The curriculum is designed around inspirational, stimulating and challenging activities to develop children's self-esteem, independence, confidence and responsibility. We believe that each of these play a key role in raising pupil attainment and aspirations, improving their wellbeing and influencing their capacity to reach their full potential.
Through being immersed in their local natural environment, children at Sandgate Primary develop a long-lasting appreciation of nature that will stay with them and play a key role in how they care for the world around them.

Substantive Threads: Forest School

Each session within the Forest School at Sandgate is designed to progressively develop the following practical and theoretical strands of substantive knowledge:

- **The Natural World:** foster a relationship with nature through regular personal experiences in order to develop long-term, environmentally sustainable attitudes and practices.
- **Health & Wellbeing / Identity & Relationships**: develop, where appropriate, the physical, social, cognitive, linguistic, emotional and spiritual aspects of learners.
- **Identity and Interpersonal relationship:** learn to try new and varied activities that may be outside of children's comfort zone but that develop character, resilience, motivation, communication and encourage children to develop social skills and pursue wider goals.
- **Risk-taking & Resilience:** building an individual's innate motivation, positive attitudes and/or interests by offering opportunities to take supported risk appropriate to the environment and themselves.
- **Problem-Solving:** to negotiate risk and use practical and cognitive skills to solve problems.
- **Metacognition:** reflective practice to ensure learners and practitioners can understand their achievements, develop emotional intelligence and plan for the future.

Disciplinary Threads: Forest School

Each session within the Forest School at Sandgate is designed to progressively develop children's knowledge of the discipline of Forest School. Sessions have been organised around developing this in the following areas:

- **Connecting with nature:** adapt a nurturing attitude towards the natural world, understanding why it needs looking after and how it benefits our physical and emotional health.
- **Knowledge over time:** how knowledge of the natural world develops through experimentation, purposeful play, scientific enquiry & observation.
- **Participation:** how people engage with nature for short- and long-term impacts and for their appreciation of the natural world.

Term 5 – Year 1

YEAR 1					
TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6
				Summer **Discover and explore**	
				↓	

Necessary context for learning:

The children…

Take part in treasure hunt with map of Forest School.

Construct mini dens for woodland teddies.

Take part in a wildflower hunt, introducing: dandelion, daisy, bluebell, teasel, forget-me-not.

Take part in a Tree discovery trail, introducing: elder, beech, sycamore, lime, cherry tree.

Are shown how to do tree and leave rubbings

Design a elder-bead necklace made from elder wood

Roast a marshmallow on an open fire.

…pupils learn:

Art:

When exploring outdoor areas in summer term and making drawings/rubbings of plants and flowers, pupils will learn…

- To create art that represents the idea of summer through colours and use of summer plants.

Science:

- To be able to recognise common wild and garden plants.
- Research common deciduous and evergreen trees and know the difference between them.

Geography

- That maps are an important tool in Geography.
- To use the compass directions North South, East and West
- **Physical features** like seas, mountains and rivers are natural. They would be here even if there were no people around.
    - *In Forest School: trees, grass, soil, weather, wildflowers,*
- **Human features** are things like houses, roads and bridges. They have been built by people.
    - *In Forest School: pathways, basecamp, play equipment, parachute, fence, etc…*

Design and technology - Elder Bead Necklace

- explore different types of bead designs
- design their ow elder bead necklace
- explain and demonstrate how to safely use a bradawl tool
- explain and demonstrate how to safely use am palm drill
- hollow out the elder bead by removing the soft pith
- to peel away the bark by using their fingers
- Explore other children's necklace designs and evaluate their own

Cooking - Roasted Marshmallows

- Understand how marshmallows are made and know their nutritional values
- Know and demonstrate how to safely roast a marshmallow on an open fire

Popcorn

- Understand that popcorn is made from a variety of corn kernel which expands and puffs up when heated.
- Know and demonstrate how to use a sieve popcorn cooker to prepare popcorn by holding it from a safe distance using the respect pose.
- To effectively cook a popcorn in a sieve popcorn cooker by holding it at the right distance from the fire for an appropriate amount of time.

PREREQUISITES

Fire Lighting

beginner 1 -4 (see fire lighting progression)

Science:

- To talk about the differences between materials and changes they notice.
- That we have many different types of weather and these change according to the season.
- That the weather can affect the sea.
- That materials have properties and some are waterproof.
- That there are 4 seasons in the year. These are Autumn, Winter, Spring and Summer. In these seasons there are different types of weather such as snow in Winter and sun in the Spring and Summer.
- Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes. (Early Learning Goal)
- That a life cycle is the different stages of life for a living thing.
- To observe changes to plants and animals such as tadpoles and explain why those changes occur
- To record changes to plants and animals over a period of time.
- To name the parts of a flower – roots, stem, leaves and flower.

SUBSTANTIVE AND DISCIPLINARY LANGUAGE STEMs

- When doing fieldwork, scientists try to…
- When observing nature, scientists…
- I predict/observe/conclude that…
- I want to know/find out that…
- The data I have gathered/recorded does /does not show that…
- I predict/observe/conclude that…
- I want to know/find out that…

Term 6 – Year 2

YEAR 2					
TERM 1 **Year 2** **Discover and explore**	**TERM 2** **Year 4** **Explore and conserve**	**TERM 3** **Year 5** **Conserve and share**	**TERM 4** **Year 3** **Explore and conserve**	**TERM 5** **Year 1** **Discover and explore**	**TERM 6** **Year 6** **Conserve and share**
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Necessary context for learning:

The children…

Take part in a mini beast hunt

play the 'needs for survival game'

Play the compass game, using hoops to navigate North, East, South and West.

Play a game where they match parent to offspring

Take part in making clay tree faces

Take part in designing and making a woodland instrument

Take part in treasure hunt using compasses and a map of Forest School

Analyse the rainfall, temperature and wind direction at the start of each session

Create maps of the Forest School

Roast a marshmallow and use that to prepare a 's'more' (marshmallow squashes between two chocolate digestives)

…pupils learn

Science:

- Animals, including humans, have offspring, which grow into adults and have the basic needs of feeding, drinking and breathing that must be satisfied in order to survive.
- A life cycle is the series of changes that an animal or plant passes through from the beginning of its life until its death.
- How to identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
- Objects made of some materials can be changed in shape by bending, stretching, squashing and twisting.
- That an object made of wood is classed as dead and objects made of rock, metal and plastic have never been alive.
- All objects either are living, dead or have never been alive.

Design and technology:

- know different types of designs of 'woodland' instruments
- Design a 'woodland' instrument
- Know the different tools and equipment available to them to create a woodland instrument: *Bacho saw, saw horse, hammer, nails, clamp, etc..*
- Be competent with the listed tools and equipment
- Explore and evaluate existing instruments and evaluate their own

Geography:

- To use simple compass directions and locational and directional language to describe the location of features and routes on a map.
- The four seasons are spring, summer, autumn and winter, and the characteristics of each in relation to the UK.
- That a rain gauge measures how much rain has fallen, a wind vane shows which way the wind is blowing and a thermometer measures the temperature.
- To know that weather forecasts help people to prepare for different kinds of weather.
- That Geographers collect information and data to study weather and climate.

Cooking – S'mores

- Understand how marshmallows are made and know their nutritional values
- Understand that to effectively make a s'more, the marshmallow has to be melted enough to be able to be squashed between two biscuits.
- To safely cook a s'more on an open fire, using the respect pose and keeping a safe distance from the fire.

To make Elderflower cordial

Elderflower cordial

- To know that cordial can be described as a non-alcoholic, syrupy drink such as lime or elderflower cordial
- To know that cordials are a mix of fruit, sugar, water and tartaric or citric acid.
- To effectively describe all of the steps and process of making elderflower cordial
- To understand that the lemon acts as an acidic preservative which means that you can keep homemade cordials in the fridge for up to six weeks.
- To evaluate the homemade cordial by tasting it.

PREREQUISITES

Fire Lighting

beginner 1 -4 (see fire lighting progression)

Science:

- Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals, including humans)
- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)
- That a healthy lifestyle involves exercise and a balanced diet. (EYFS)
- That personal hygiene includes cleaning your body every day, washing your hands with soap after going to the toilet and before you eat, brushing your teeth twice a day, and covering your mouth and nose when you cough or sneeze. (EYFS)
- Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials)
- Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants)
- Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants)
- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 - Animals including humans)
- Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals including humans)
- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 – Animals, including humans)
- Observe changes across the four seasons. (Y1 - Seasonal changes
- That a life cycle is the different stages of life for a living thing. (EYFS)
- To observe changes to plants and animals such as tadpoles and explain why those changes occur. (EYFS)
- To record changes to plants and animals over a period of time. (EYFS)
- To name the parts of a flower – roots, stem, leaves and flower. (EYFS)
- Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants)
- Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 -Plants)

SUBSTANTIVE AND DISCIPLINARY LANGUAGE STEMs

- When doing fieldwork, scientists try to…
- When observing nature, scientists…
- I predict/observe/conclude that…
- I want to know/find out that…
- The data I have gathered/recorded does /does not show that…
- I predict/observe/conclude that…
- I want to know/find out that…

Term 4 – Year 3

TERM 1 Year 2 **Discover and explore**	TERM 2 Year 4 **Explore and conserve**	TERM 3 Year 5 **Conserve and share**	TERM 4 Year 3 **Explore and conserve**	TERM 5 Year 1 **Discover and explore**	TERM 6 Year 6 **Conserve and share**
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Necessary context for learning:

Take part in a mini beast hunt

Make their own soil following a recipe

Construct an aqueduct with pipes and tennis balls

Create plant cyanotypes art

Find and identify plants found in the woodland

Create a Roman 'stylus' scribing tool for clay/wax tablet out of wood

Create a 'mini Iron Age roundhouse with a building materials: posts, willow and a cone for the roof.

Play Hawkeye Hunther Gatherer Game

Construct primitive hunter gatherer waterproof shelter

Take part in a re-enactment of a Roman invasion of an Iron age village

...pupils learn

Science – animals including humans, rocks, forces and plants

- Animals, unlike plants which can make their own food, need to eat in order to get the nutrients they need.
- Vertebrates are animals that have a backbone. These skeletons are called endoskeletons
- When the skeleton exists outside the body, it is called an exoskeleton. An exoskeleton is a covering that supports and protects animals.
- Soils are made up of pieces of ground down rock, which may be mixed with plant and animal material (organic matter).
- There are three types of rocks that are formed naturally: Igneous, sedimentary and metamorphic.
- On a ramp, the force that causes the object to move downwards is gravity.
- A light source is something that emits light by burning, electricity or chemical reactions. Burning light sources include the Sun, flames from a fire and stars.
- The light from the sun can damage our eyes and therefore we should not look directly at the sun and can protect our eyes by wearing sunglasses or sunhats in bright light.
- Many plants, but not all, have roots, stems/trunks, leaves and flowers/blossom.
- The roots absorb water and nutrients from the soil and anchor the plant in place.
- The stem transports water and nutrients/minerals around the plant and holds the leaves and flowers up in the air to enhance photosynthesis, pollination and seed dispersal.

Design and technology – Roman Stylus

- How and why the Romans used a Stylus
- Design their own Roman Stylus
- Know the different tools and equipment available to them to create a stylus: *potato peeler, craftsman knife, sand paper and linseed oil.*
- Be competent with the listed tools and equipment
- Explore and evaluate existing styluses and evaluate their own

History – Bronze Age to Iron age and Romans

- That in Britain, the Stone Age, Iron Age and Bronze Age was a period from around 15,000BC to 43AD (Roman invasion).
- That historical understanding of the Stone Age, Bronze Age and Iron Age is based on limited specific sources.
- How technology changed from simple stone tools to the forging of metals and how this lead to wider farming.
- How homes and buildings changed from the Stone Age to the Iron Age.
- To know that the Romans were an ancient civilisation of successful invaders, using their large, highly organised and well-trained army to explore and rule places across the world.
- That the Romans built towns and roads all across Britain connecting the major towns and cities, making trade and the movement of its army easier.

Cook roman pancakes on an open fire 	**Cooking – Roman pancakes** • To compare the ingredients needed to make a simple pancake mixture and a Roman pancake • To compare the process of normal pancakes vs roman pancakes • to list the ingredients and equipment needed to make roman pancakes • to list the most important safety aspects of cooking on an open fire • safely cook a pancake on an open fire using a pan with an extended handle

PREREQUISITES

Sience

- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 -Animals, including humans)
- Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 -Animals, including humans)
- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 -Animals, including humans)
- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). (Y2 - Animals, including humans)
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Y2 - Animals, including humans)
- 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)
- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Y2 - Uses of everyday materials)

SUBSTANTIVE AND DISCIPLINARY LANGUAGE STEMs

- When doing fieldwork, scientists try to…
- When observing nature, scientists…
- I predict/observe/conclude that…
- I want to know/find out that…
- The data I have gathered/recorded does /does not show that…
- I predict/observe/conclude that…
- I want to know/find out that…

Term 2 – Year 4

YEAR 4					
TERM 1 **Year 2** **Discover and explore**	**TERM 2** **Year 4** **Explore and conserve**	**TERM 3** **Year 5** **Conserve and share**	**TERM 4** **Year 3** **Explore and conserve**	**TERM 5** **Year 1** **Discover and explore**	**TERM 6** **Year 6** **Conserve and share**

Necessary context for learning:

watch a demonstration of lighting wire wool with a battery

Construct an aqueduct with pipes and tennis balls

Create plant sonography art

Find and identify plants found in the woodland

Use classification sheets to identify animals based on their physical features

Create a pine cone decoration

Play the deforestation game

…pupils learn

Science – Animals including humans, Electricity, Living things and their habitats

- Living things can be classified as producers, predators and prey according to their place in the food chain.
- Canines are pointed for tearing and ripping food - these are usually used when chewing meat.
- Incisors are shovel shaped and help bite lumps out of and cutting food.
- Premolars and molars are flat and they grind and crush food.
- A complete circuit is a loop that allows electrical current to flow through wires.
- To know how to observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
- Melting is a state change from solid to liquid.
- Boiling is a change of state from liquid to gas that happens when a liquid is heated to 100 degrees Celsius and bubbles of the gas can be seen in the liquid.
- Evaporation is the same state change as boiling (liquid to gas), but it happens slowly at lower temperatures and only at the surface of the liquid
- Living things live in a habitat, which provides an environment to which they are suited. These environments may change naturally, for example through flooding, fire or earthquakes.
- Humans also cause the environment to change. This can be in a good way or in a bad way. These environments also change with the seasons.
- Living things classified in different ways according to their features, where they live and what type of organism they are.

Design and technology – Pine Cone Decoration

- To describe the difference between 'green' (wet) wood and dry wood
- To finish their wooden disc by smoothing the edges with sand paper
- To use a hacksaw to cut a wooden disc of a specific measurement supported by a saw horse with adult supervision
- Drill hole halfway through the disk using a manual hand drill
- Glue a pine cone on top using strong wood glue

Geography – The World and Climate Zones

- That climate change refers to changes in the Earth's usual weather conditions over many years.
- That the Amazon rainforest is threatened by deforestation, flooding and climate change.
- That environmental regions are at risk due to human activity.
- That if a pattern of weather occurs over a long period, this can be described as its climate.

Cook toffee apples on an open fire

Make nettle tea with nettles from the forest

Cooking – Toffee apple

- to explain where apples grow
- to list reasons why toffee apples might be a heathier option than roasted marshmallows
- that a toffee mixture is made of: water, brown sugar and mixed spice

Making Nettle Tea

- to explain that tea is hot drink made by infusing the dried crushed leaves of plants in boiling water
- Describe the whole process of making nettle tea: picking, washing and boiling the leaves, adding lemon and honey.
- Describe the health benefits of drinking tea
- Describe the effects of herbal tea on the human body

PREREQUISITES

- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 -Animals, including humans)
- Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 -Animals, including humans)
- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 -Animals, including humans)
- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). (Y2 -Animals, including humans)
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Y2 -Animals, including humans)
- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 -Animals, including humans)
- That a life cycle is the different stages of life for a living thing. (EYFS)
- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 -Uses of everyday materials)
- Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 -Plants)
- Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 -Plants)
- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 -Animals including humans)
- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 –Animals, including humans)
- Identify and name a variety of plants and animals in their habitats, including microhabitats. (Y2 -Living things and their habitats)

- To observe changes to plants and animals such as tadpoles and explain why those changes occur. (EYFS)
- To record changes to plants and animals over a period of time. (EYFS)
- To name the parts of a flower – roots, stem, leaves and flower. (EYFS)
- Observe and describe how seeds and bulbs grow into mature plants. (Y2- Plants)
- Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. (Y2 - Plants)
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SUBSTANTIVE AND DISCIPLINARY LANGUAGE STEMs

- When doing fieldwork, scientists try to…
- When observing nature, scientists…
- I predict/observe/conclude that…
- I want to know/find out that…
- The data I have gathered/recorded does /does not show that…
- I predict/observe/conclude that…
- I want to know/find out that…

Year 5 – Term 3

TERM 1 Year 2 **Discover and explore**	TERM 2 Year 4 **Explore and conserve**	TERM 3 Year 5 **Conserve and share**	TERM 4 Year 3 **Explore and conserve**	TERM 5 Year 1 **Discover and explore**	TERM 6 Year 6 **Conserve and share**
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Necessary context for learning:

Build a working model of an Egyptian 'shaduf' (irrigation tool)

Take part in the' drinking water survival challenge'

Play the life cycle game

Play the pollination game

Play a game of matching parent to offspring

Use the for firepit and basecamp seats to simulate the Solar System

To track the movement of the sun on a sun dial

Create a willow bird feeder

Create a tent peg

...pupils learn

Science – Forces, Earth and Space, properties of materials, living things and their habitats

- Pulleys, levers and gears are all mechanisms, also known as simple machines.
- Air resistance, water resistance and friction are contact forces that act between moving surfaces.
- The Sun is a star, which is at the centre of our Solar System which contains 8 planets.
- The first four planets are relatively small and rocky, while the four outer planets are gas giants or ice giants
- There are also asteroids, meteoroids and comets in the Solar System.
- Materials have different uses depending on their properties and state (liquid, solid, gas). Properties include hardness, transparency, electrical and thermal conductivity and attraction to magnets.
- Mixtures can be separated by filtering, sieving and evaporation. Some changes are reversible (mixtures) and others are irreversible (burning)
- When the particles of a solid mix with the particles of a liquid, this is called dissolving. The result is a solution. Materials that dissolve are soluble. Materials that do not dissolve are insoluble.
- As part of their life cycle, plants and animals reproduce.
- Most animals reproduce sexually.
- Animals, including humans, have offspring which grow into adults.
- Plants reproduce both sexually and asexually. Sexual reproduction occurs through pollination, usually involving wind or insects.

Design and technology:

Willow bird feeder

- To describe that dry willow stems come from a willow tree.
- To describe that willow is commonly used for basket weaving and making willow domes.
- To understand why dry willow stems need to be soaked in water before they can be used for weaving.
- To create their own bird feeders after watching a live demonstration and following step-by-step written instructions.
- To attach a piece of string to their bird feeder in order for it to hang.
- To prepare a 'fat ball' with lard containing food for birds and add it to the bird feeder.

Tent Peg

- Explore different types of tent peg designs and materials (plastic, metal, wood)
- To describe a few benefits and risks with each peg design and material
- Understand how tent pegs need to be positioned in order to act effectively as an anchor
- Design their own wooden tent peg using hazel, lime or sycamore wood.
- Competently use a range of tools and equipment available to them to create a tent peg: *loppers, craftsman knife, potato peeler, mallet.*
- Be competent with the listed tools and equipment
- Explore and evaluate existing tent pegs and evaluate their own.

Cook chocolate orange cakes on an open fire

Make spices hot orange juice

History

- The children should recognise the tool *shaduf* and understand its purpose. They must be able to compare this with previously studied civilisations.

Geography

- That natural resources are materials or substances that are produced by the environment. Humans use natural resources to survive.
- How human activity has an impact on the environment.
- That sustainability means a process, resource or state can be maintained at a certain level for as long as is needed.

Cooking:

Chocolate Orange Cakes

- Understand where oranges originally grow
- To understand that chocolate and orange are commonly combined flavours and very popular and is associated with Christmas.
- To follow a simple step-by-step recipe for making chocolate cake batter
- To remove the orange juice with an orange squeezer
- To safely cook a chocolate orange cake on an open fire

Spiced Hot Orange Juice

- To explain that hot water or juice can be infused with other herbs and plants to add interesting flavours
- To describe the health benefits of drinking pure orange juice versus store bought orange juice
- To understand that cinnamon sticks can infuse hot drinks but have to be removed before consumption

PREREQUISITES

- Observe changes across the four seasons. (Y1 -Seasonal changes)
- Observe and describe weather associated with the seasons and how day length varies. (Y1 -Seasonal changes)
- Compare and group materials together, according to whether they are solids, liquids or gases. (Y4 -States of matter)
- Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C). (Y4 -States of matter)
- Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. (Y4 -States of matter)
- Notice that animals, including humans, have offspring which grow into adults. (Y2 - Animals, including humans)
- Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants)
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SUBSTANTIVE AND DISCIPLINARY LANGUAGE STEMs

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- The data I have gathered/recorded does /does not show that…
- I predict/observe/conclude that…
- I want to know/find out that…

Year 6 – Term 1

TERM 1 Year 2 **Discover and explore**	TERM 2 Year 4 **Explore and conserve**	TERM 3 Year 5 **Conserve and share**	TERM 4 Year 3 **Explore and conserve**	TERM 5 Year 1 **Discover and explore**	TERM 6 Year 6 **Conserve and share**
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Necessary context for learning:

Collect bugs and classify them based on their observable characteristics

Construct a human classification chart

To complete a bug trail, trying to find an animal from each of these groups: insect, mollusc, arachnid

To make camp night souvenirs from wooden discs

To create a Whimmy Diddle Stick

...pupils learn

Science – Living things and their habitats and evolution

- How to describe the way living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals.
- Plants can make their own food whereas animals cannot.
- Animals can be divided into two main groups: those that have backbones (vertebrates) and those that do not (invertebrates).
- Vertebrates can be divided into five small groups: fish, amphibians, reptiles, birds and mammals. Each group has common characteristics.
- Invertebrates are animals with no backbone. There are three ways invertebrates can be grouped:
- Insects: three body sections and six legs
- Arachnids: two body sections and eight legs
- Molluscs: slimy foot, often have a shell
- Plants can be divided broadly into two main groups: flowering plants and non-flowering plants.
- Evolution is a process of change that takes place over many generations, during which species of animals, plants, or insects slowly change some of their physical characteristics.
- Plants and animals have characteristics that make them suited (adapted) to their environment. If the environment changes rapidly, some variations of a species may not suit the new environment and will die.
- Over a very long period of time, these characteristics may be so different to how they were originally that a new species is created. This is evolution

Design and technology:

Wooden Disc Medals

- to understand the difference between green 'wet' wood and dry wood
- to understand the usage of a rough-toothed bowsaw and a fine-toothed hand saw and describe the difference in finish
- to use sand paper to smoothen the surface of the wooden disc
- to drill a hole by the edge of the disc
- to decorate the surfaces of the wooden disc and attach a string to the hole.
- to evaluate their wooden medal souvenir

Whimmy Diddle Stick

- To know that the whimmy diddle is a wooden mechanical toy consisting of two wooden sticks. One has a series of notches cut transversely along its side and a smaller wooden stick or a propeller attached to the end with a nail or pin.
- To list all the resources you need to make a whimmy diddle stick: two sticks, propeller, one small nail.
- One stick is held stationary in one hand with the notches up, and the other stick is rubbed rapidly back and forth across the notches. This causes the propeller to rotate.
- To competently use the following tools: secateurs, craftsman carving knife, potato peeler, hammer.
- To finish the Whimmy Diddle toy by sanding it and adding some decorations in paint.

Create their own maps of Forest School in the OS style

To study a local OS map and locate the Forest School area

To take part in a treasure hunt using grid coordinates to find a treasure

Cook garlic Bread Curls on an open fire

To make Elderflower cordial

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Geography

- That human actions cause erosion through deforestation, farming and agriculture, construction of roads and buildings, logging, mining, climate change.
- That Geographers use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods.
- How the water cycle works.
- The journey from source to mouth of a river.
- That maps represent the human and physical Geography of a location, based on fieldwork and observation.
- That Geographers observe and collect information and data from fieldwork, photos and aerial images, diagrams, globes, atlases and simple maps and charts.
- That the ordinal directions are: northeast (NE), southeast (SE), southwest (SW), and northwest (NW), and that these are each halfway between each cardinal direction.
- That the symbols on OS map represent human features such as information points and physical features such as forests.

Cooking:

Garlic Bread Curls

- To follow a simple recipe to create bread dough using: flour, yeast, honey and water.
- To understand why bread needs to be left to rise for a least an hour.
- To mix garlic, parsley and butter to create a flavoured coating.
- To roll a fraction of bread dough and wrap it firmly around a skewer.
- To safely cook the bread curl over an open fire for at least 5 minutes.

Elderflower cordial

- To know that cordial can be described as a non-alcoholic, syrupy drink such as lime or elderflower cordial
- To know that cordials are a mix of fruit, sugar, water and tartaric or citric acid.
- To effectively describe all of the steps and process of making elderflower cordial
- To understand that the lemon acts as an acidic preservative which means that you can keep homemade cordials in the fridge for up to six weeks.
- To evaluate the homemade cordial by tasting it.

PREREQUISITES

- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Y2 - Animals, including 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)
- Describe the simple functions of the basic parts of the digestive system in humans. (Y4 -Animals, including humans)
- Identify the different types of teeth in humans and their simple functions. (Y4 -Animals, including humans)
- Compare and group together everyday materials based on their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. (Y5 - Properties and changes of materials).
- Recognise that living things can be grouped in a variety of ways. (Y4 -Living things and their habitats)
- 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)
- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. (Y5 -Living things and their habitats)
- Describe the life process of reproduction in some plants and animals. (Y5 -Living things and their habitats)

- 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. (Y2 -Living things and their habitats)
- Notice that animals, including humans, have offspring which grow into adults.(Y2 -Animals, including humans)
- Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 -Plants)
- Describe in simple terms how fossils are formed when things that have lived are trapped within rock. (Y3 -Rocks)
- Recognise that environments can change and that this can sometimes pose dangers to living things. (Y4 -Living things and their habitats)
- Describe the life process of reproduction in some plants and animals. (Living things and their habitats -Y5)

SUBSTANTIVE AND DISCIPLINARY LANGUAGE STEMs

- When doing fieldwork, scientists try to…
- When observing nature, scientists…
- I predict/observe/conclude that…
- I want to know/find out that…
- The data I have gathered/recorded does /does not show that…
- I predict/observe/conclude that…
- I want to know/find out that…

Fire Lighting: Year 1 – Year 6

TERM 1 Year 2 **Fire Lighting**	TERM 2 Year 4 **Fire lighting**	TERM 3 Year 5 **Fire lighting**	TERM 4 Year 3 **Fire lighting**	TERM 5 Year 1 **Fire lighting**	TERM 6 Year 6 **Fire lighting**

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Necessary resources for learning:

Beginner 1:

Fire circle, water bucket, fire safety kit.

Beginner 2:

Fire circle, water bucket, fire safety kit, fire steels, cotton wool pads, dry grass/leaves/straw

Beginner 3:

Area in which to collect sticks and twigs in a variety of thicknesses, peelers

Beginner 4:

Fire steels

Beginner 5:

Fire circle, water bucket, fire safety kit, skewers or sharpened sticks, food to cook on a stick

...pupils learn

Fire – beginner 1

- to demonstrate fire circle etiquette
- to understand the importance of following the fire circle guidelines
- to demonstrate their understanding of the fire circle guidelines by the way they act in and around the fire circle
- to adopt the correct kneeling posture for being close to the fire

Fire – beginner 2

- to understand the need for completely extinguishing a fire
- to understand and explain the importance of fully extinguishing fires
- to understand and explain the constituent parts of the fire triangle
- to demonstrate the correct method for fully extinguishing the fire and checking for residual heat.

Fire – beginner 3

- to collect dry sticks
- to understand and explain the difference between green wood and dead wood and why green wood is not suitable to burn
- Learner can identify both dry and greenwood and sort them appropriately.

Fire – beginner 4

- to produce sparks with a fire steel
- to consistently create sparks using a fire steel

Fire – Beginner 5

- to safely cook items on a stick over the fire
- to safely cook an item of food over the fire Learner can demonstrate safe fire circle etiquette whilst cooking

National Curriculum links:

Physical education
Science – Everyday materials, States of matter, Properties and changes of materials Physical education
Science - Plants, Living things and their habitats Physical education
Science – Properties and changes of materials, Forces
Cooking and nutrition Physical education Science - Properties and changes of materials, States of matter