Understanding The World.

Educational Programme.

Understanding the World

Understanding the world involves guiding children to make sense of their physical world and their community.
The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society, such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.

ELG

The Natural World

Explore the natural world around them, making observations and drawing pictures of animals and plants

Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class

Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Science in the EYFS.

Working Scientifically

Children are developing –
Curiosity and scientific enquiry
Observation skills
Prediction skills

Children are -
Asking and answering how/why questions
Offering explanations and making links
Using specific, yet simple, scientific vocabulary

Plants

All plants need water, light and warmth to grow and survive.
A seed produces roots to allow water to get into the plant and shoots to produce leaves to collects the sunlight.
Extend vocabulary: blossom, buds, bulb, evergreen, deciduous.
Describe what they see, hear & feel whilst outside.
Name & describe some plants.
Draw pictures of plants.
Understand the effect of changing seasons on the natural world around them.

Materials

Observe & interact with natural processes, such as ice melting, a sound causing a vibration, light travelling through transparent material, an object casting a shadow, a magnet attracting an object & a boat floating on water
Use vocabulary to name specific features of the natural world, both natural & man-made
Notice & discuss patterns around them e.g. the effect of seasons on flora & fauna

Living Things and Their Habitats

Describe what they see, hear & feel whilst outside
Observational drawings of the natural world
Discuss how to care for the living things & their habitats
Observe how flora & fauna behave differently as the seasons change
Examine change over time
Use correct terms e.g. chrysalis, pupa when observing the life cycle of a butterfly & frogs
Express opinions on natural & built environments & opportunities to hear different points of view on the quality of the environment. Use words such as busy, quiet, pollution

Animals, including humans

Shows some understanding that good practices with regard to exercise, eating, drinking water, sleeping & hygiene can contribute to good health
Describe what they see, hear & feel
Identify different parts of their body & animals
Be able to show care and concern for living things
Know the effects exercise has on their bodies
Have some understanding of growth and change
Talk about things they have observed including animals
Observational drawings of animals

Science Vocabulary/Statement(s) in the EYFS.

Working Scientifically –
look closely, observe, watch, touch, feel, smell, listen, same, different, compare, ask questions, record, sort, group

Plants –
tree, bush, herb, names of plants they see

Animals (including humans) –
names of animals, live, on land, in water, jungle, desert, North Pole, South Pole, sea, hot, cold, wet, dry, snow, ice, hair (e.g. black, brown, dark, light, blonde, ginger, grey, white, long, short, straight, curly), eyes (e.g. blue, brown, green, grey), skin (e.g. black, brown, white), big/tall, small/short, bigger/smaller, baby, toddler, child, adult, old person, old, young, brother, sister, mother, father, aunt, uncle, grandmother, grandfather, cousin, friend, family, boy, girl, man, woman

Light –
Sun, sunny, light, shadow, shady, clouds, torch, see-through, not see-through, source, light source

Living Things and their habitats –
plant, tree, bush, flower, vegetable, herb, weed, animal, names of plants and animals they see, name of a contrasting environment (e.g. beach, forest)

Forces –
float, sink, up, down, top, bottom, surface, move, roll, drop, fly, turn, spin, fall, fast, slow, faster, slower, fastest, slowest, further, furthest, wind, air, water, blow, bounce

Earth and Space –
Sun, Moon, Earth, star, planet, sky, day, night, space, round, bounce, float

Seasonal Changes –
spring, summer, autumn, winter, seasons, sunny, cloudy, hot, warm, cold, shower, raining, storm, thunder, lightning, hail, sleet, snow, icy, frost, puddles, windy, rainbow, animals, young, plants, flowers

Materials –
ice, water, frozen, icicle, snow, melt, wet, cold, slippery, smooth, big, bigger, biggest, smaller, smaller, smallest, hard, soft, bendy, rigid, wood, plastic, paper, card, metal, strong, weak, hot, apply heat, waterproof, soggy, not waterproof, best, change, change back

Sound –
sound, noise, listen, hear, music, voices, bird song, traffic, sirens, thunder, high, low, loud, quiet, soft, volume, crackle, thunder, hum, buzz, roar

History in the EYFS.

What does an EYFS Scientist need to understand?	What does an EYFS Scientist need to know?	How can they show they are Scientists?
That there are changes in the natural world through the seasons	That there are four seasons across the year That the seasons affect the temperature Plants and animals react to seasons in the way they grow and their natural life cycles The length of day and night changes depending on the season Know the vocabulary of the four seasons.	Start to use the vocabulary associated with the seasons. Comment on the weather and temperature making simple observations linked to seasonal understanding. Comment on what they see in their local environment such as flowers in bud or leaves falling from trees and make connections, linking it to their seasonal understanding. Comment on characters, settings and events in stories that are linked to seasonal characteristics and changes. Collect and examine evidence of changing seasons talking about what they see.

Science in the EYFS.

What does an EYFS Scientist need to understand?

That there are similarities and differences in the natural world.

What does an EYFS Scientist need to know?

That the natural environment and world around them supports them to live and grow

How to respect and care for the natural environment and all living things

How to care for their immediate environment and the wider world

How can they show they are Scientists?

Communicate orally, in simple descriptions and explanations for example talk about a farm, which animals live there / plants grow there and the job of the farmer.

Talk about their knowledge for example that some animals habitats need certain conditions such as polar bears prefer to live in cold climates. Demonstrate this through their small world play and storytelling.

Take part in activities such as recycling in school, rewilding projects, traffic calming posters and develop an eco- conscious approach to classroom practices and resources.

Ask and answer questions about what they have observed, e.g. Who lives where? Why do some animals live in cold places and some do not? Why is plastic harmful? How can we help to keep our planet clean?

Science in the EYFS.

What does an EYFS Scientist need to understand?	What does an EYFS Scientist need to know?	How can they show they are Scientists?
That there are key words/vocabulary associated with science.	Know a range of scientific words such as habitat (what words will lead into Year 1 topics for example) Know a range of words that relate to scientific enquiry such as observe, explore, results, investigate, explain (in line with consistent vocabulary that is used in Year 1) Be able to name a range of equipment that they use such as pooter, magnifying glass, incubator	Be able to talk about the work / activity/ experience they are having, organising their thinking, explaining how things work and why they might happen. Use appropriate vocabulary for science specific equipment and processes building on Tier 1 vocabulary and understanding For example understanding that where an animal lives is known as a habitat.

Science in the EYFS.

What does an EYFS Scientist need to understand?	What does an EYFS Scientist need to know?	How can they show they are Scientists?
That the world is made up of different animals and plants.	That some things are living and others are non- living. How to plant seeds and look after living plants to help them grow. That animals change as they grow and have life cycles.	Sort e.g. living things, into two simple groups, using given criteria. Communicate what they have learned through drawing or some other way of recording. Can comment on how two animals, are similar or different from each other; notice and describe how they change as they grow. Ask and answer questions about what they have observed, e.g. May ask and answer science based questions on first hand experiences and books.
There are important processes and changes that happen.	Know that temperature can change materials in both reversible and irreversible ways such as melting ice, chocolate or baking bread.	Use their senses and hands on exploration of natural materials and their environment to explore and talk about what they see, hear, smell and touch. Ask questions and investigate why things happen in the classroom and wider environment through adult led and child-initiated activities for example creating a volcano experiment that leads to a discussion of the process alongside real life pictures and videos – often linked to the children's own interests.

Science in the EYFS.

What does an EYFS Scientist need to understand?	What does an EYFS Scientist need to know?	How can they show they are Scientists?
Use a range of scientific equipment to help them develop their lines of enquiry.	How to handle equipment carefully, safely and appropriately; Know that some specialist equipment can help us to understand the natural world and enhance our experiences.	Select equipment and materials to use to create e.g. a nest, or animal habitat (bug hotel, hedgehog home) To observe closely and present results
How science is used to help us.	That science has helped us to live healthier lives for example understanding our bodies – link to oral hygiene.	Understand the importance of oral hygiene and how to look after their bodies and own personal hygiene. Be able to ask and answer questions in familiar contexts, e.g. What happens at night? What can we see when it's dark? What helps us to see in the dark? How do we travel? How do things move? Explore how things work and talk about it for example magnifying glasses and how they make things bigger to be seen in more detail.