

Knowledge and Understanding

To become an **Exceptional Explorer** and **Super Scientist** who can show curiosity about the world around them. Describe what they see, hear and feel. Understand the effect of changing seasons on the natural world around them.

Living things and their habitats:

- I can explore different habitats outdoors, e.g. scent, colour and shape of flowers attracting bees.
- I have observed growth and decay over time.
- I understand the need to respect & care for the natural environment and all living things.
- I can talk about what I see (using new vocabulary).
- I understand that animals change as they grow.
- I can name baby animals and the corresponding adult.
- I understand the key features of the life cycle of a butterfly.
- I can say the key features of the life cycle of a chicken.

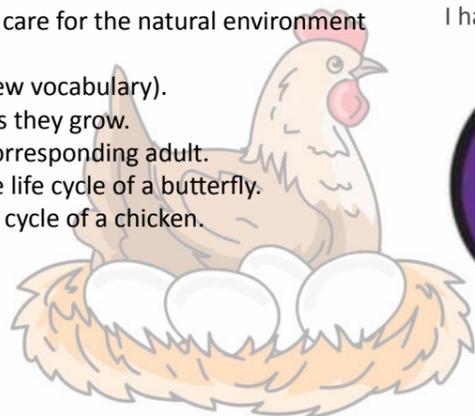
Animals including Humans:

- I can observe animals closely through a variety of means e.g. magnifiers and photographs.
- I know that people change from a baby to an adult.
- I can name and identify body parts.
- I can name the 5 senses.
- When engaging in physical activities I can observe and describe in words or actions the effects of physical activity on my body.
- I know that brushing my teeth is good oral hygiene.
- I have an understanding of what is healthy and unhealthy e.g. sorting foods.



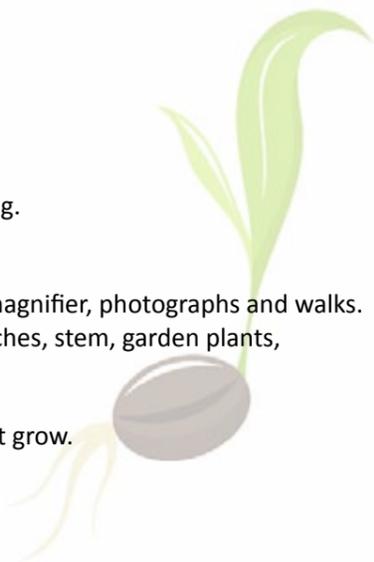
Materials:

- I use my senses in hands-on exploration of natural materials.
- I explore collections of materials with similar and/or different properties.
- I can talk about what I see, using a wide (new) vocabulary.
- I can explore how things work e.g. pulleys.
- I explore & talk about different forces I can feel e.g. stretch, snap, water pushing up when pushing a boat under it.
- I can talk about the differences between materials and changes I notice e.g. cooking, melting, shadows, floating and sinking.
- I know some characteristics of liquids and solids e.g. cooking eggs, melting chocolate.
- I know how to handle equipment safely.
- I have some awareness that science helps us to develop equipment that makes our lives easier (or more fun) such as cameras, bouncy castles, cars.



Plants:

- I know that some things are living and some things are non-living.
- I know that plants start growing from a seed or bulb.
- I can recall plants need water and sunlight to grow & survive.
- I have observed plants closely through a variety of means e.g. magnifier, photographs and walks.
- I have learnt vocabulary: leaves, petals, roots, bulb, trunk, branches, stem, garden plants, wild plants, seeds.
- I have used all my senses in hands-on exploration of plants.
- I know how to plant a seed and look after a living plant to help it grow.
- I know the life cycle of a plant.



Links from Development Matters (September 2021)

Captain Creative

- Sort objects and materials.
- Solve real problems.
- Make links between their ideas.

Professor Play

- Make choices, exploring different materials and resources.
- Plan and think ahead.
- Respond to new experiences.

Agent Active

- Use a range of strategies to reach a goal.
- Enjoy meeting challenges for their own sake.
- Keep on trying and bouncing back after difficulties.

Physical:

- Make healthy choices about food, drink, activity and toothbrushing

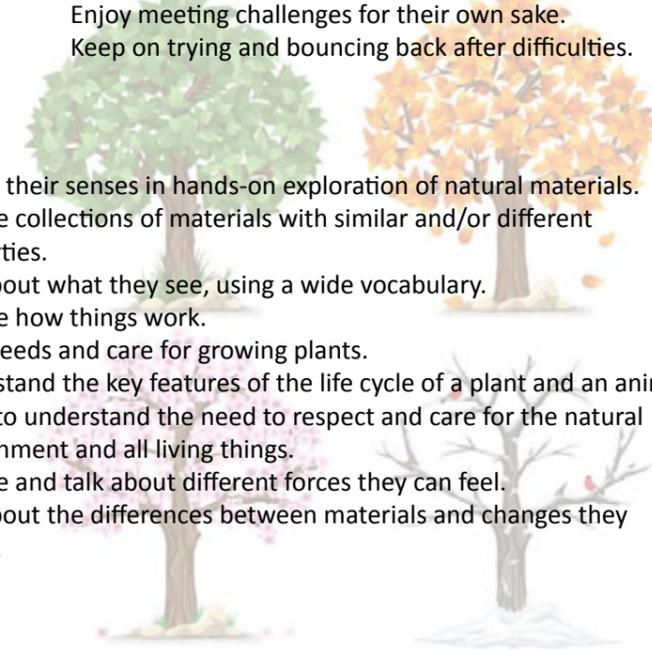
C&L:

- Understand 'why' questions, like: "Why do you think the caterpillar got so fat?"



UW:

- Use all their senses in hands-on exploration of natural materials.
- Explore collections of materials with similar and/or different properties.
- Talk about what they see, using a wide vocabulary.
- Explore how things work.
- Plant seeds and care for growing plants.
- Understand the key features of the life cycle of a plant and an animal.
- Begin to understand the need to respect and care for the natural environment and all living things.
- Explore and talk about different forces they can feel.
- Talk about the differences between materials and changes they notice.



Core and Appropriate Vocabulary

Know a range of scientific words such as: **acorn, conker, pine cone, head, eyes, nose, ear, neck, arms, body, legs, hands, feet, hair, mouth, teeth, tongue, tail, sight, touch, smell, taste, hearing, sound, listen, tree, leaf, flower, seed, bean, grow, petals, branches, trunk, light, dark, night, day, sun, moon, spring, autumn, summer, winter, material, shell, stones, melt, freeze, soft, hard, smooth, bumpy, wood, paper, metal, rough, forces I can feel e.g. stretch, snap, water pushing, wind, action.**

Know a range of animals and their babies: Pets (A wide variety of pets will be covered during this topic following the interests of the children)
Farm animals, cow, horse, pig, hen, sheep, goat, kid, calf, foal, piglet, lamb.

Know a range of words that relate to scientific enquiry such as **look, find, see**, notice, explore, what happened, sort, group,
 Be able to talk about the work/activity experience they are having, organise their thinking, explaining how things work and how they might happen.
 Be able to name a range of equipment that they use such as a **bug collector, magnet, torch, magnifying glass.**



More specialised vocabulary will be introduced as the theme/investigation develops. Some words will be new to the children and just introduced while others will be more familiar and repeated and consolidated.