Year 2 Science

Topic	Curriculum information	Forest School link
Uses of 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. Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	Children explore natural materials in Forest schools' mud, grass, stones, bark, wood etc. We also have metal pans/trays and wooden spoons - properties of these i.e. shiny, rough, stretchy, etc. Children learn that the material can be changed by bending, squashing and twisting. For example, mud can be shaped by squashing, twisting, pressing and rolling depending on the thickness of the material. **(Properties and changes or materials - year 5 Mixtures can be separated by filtering, sieving and evaporation. Changes such as burning wood, rust form and these are not reversible.)**
Living things and their habitats Living things and their habitats – Habitats around the world	Explore and compare the differences between things that are living, dead, and things that have never been alive. 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	Children learn that all objects are either living, dead or have never been alive. Living things are plants and animals. Dead things are dead animals and plants and parts of plants and animals that are no longer attached. Things that have never been alive include rocks, plastic, glass, metal etc. Children experience death in Forest Schools when we see dead birds or mice etc. Sometimes we observe them as they decay to see what happens to them over time. sometimes the children bury them, making little graves that they decorate and pray for the animal. At times we may find part of an animal for example a bird's wing which they then identify as the animal being dead. Children are told not to pick flowers etc as they will then die. Children learn that animals and plants live in a habitat to which they are suited. Animals have features that help them move and find food. Plants have features that help them grow. The habitat provides the basic needs of the animals and plants – shelter, food and water.

	Identify and name a variety of plants and animals in their habitats, including microhabitats. Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.	Children begin to learn about microhabitats within habitats – in leaf litter, on the bark of trees. Micro-habitats have different conditions – dark or light, damp or dry. Children begin to learn that the conditions affect which plants and animals live here. Children begin to associate that plants and animals need each other for food and shelter etc. **(Year 3/4 -Habitats can be changed naturally by flooding, fire, an earthquake etc. Humans also cause the environment to change in a positive way - setting up reservoirs but also in a negative way i.e. littering. These environments change with the seasons. Living things can be found in habitats at different times of the year.)** **(Year 5 – As part of a life cycle, plants and animals reproduce.** **Animals have offspring that grow into adults and are alive the moment they are born – babies, squirrels etc. Other animals lay eggs i.e. chickens and snakes, which hatch into young and grow into adults. Some young go through further changes before becoming adult i.e. caterpillars to butterflies – Metamorphosis).**
Animals including humans – growth Animals including humans – Life cycles	Notice that animals, including humans, have offspring which grow into adults. Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	Children learn that animals and humans have offspring who grow into adults these will be babies, kittens etc. Eggs that are hatched into young or other stages which then grow to adults. And that some young do not look like their parents e.g. tadpoles. Children understand that animals and humans need basic needs of feeding, drinking, breathing in order to survive. Children like to talk about how they keep fit and healthy. Children know that exercising and eating healthy food is goo for them. They also show good hygiene when in Forest School – washing hands before handling food etc. Also washing hands if they have touched animal faeces, mushrooms, berries etc.

Plants	Observe and describe how seeds and bulbs develop into mature plants.	Children enjoy learning how seeds and bulbs germinate and grow into seedlings which continue to grow into mature plants. Children see that these may have flowers which develop into berries, fruits etc. Children learn that seed/bulbs need to be planted outside at particular times of the year and will germinate and grow at different rates. Some plants prefer the shade and some in full sun.
	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	Children learn that plants need different amounts of water and space to grow well and stay healthy. **(Year 3 Children learn that many plants have roots, stems/trunks, leaves and flowers/blossom.** **Stem transports the water and nutrients/minerals around the plant. Leaves use sunlight and water to produce the plants food. Plants produce flowers which enable them to produce pollen – produced by the male part of the flower. Is transferred to the female part of the flower – pollination.)**

Vocabulary:

Animals Including Humans: survival, shelter, nutrition, oxygen, essential, vital, non-essential, survive, grow, healthy, protein, carbohydrate, dairy, vitamins, calcium, fat, balanced diet, nutrients, fresh food, pre-cooked, processed food, exercise, strength, flexibility, balance, coordination, hygiene, prevent, germs, bacteria, virus, life cycle, grow, survive, independent, adult, foetus, womb, helpless, toddler, develop, offspring, inherit, gene, resemble, differences, reproduction, hatchling, chick, bar chart, predict, caterpillar, transformation, larva, chrysalis, metamorphosis, frog, amphibian, frogspawn, tadpole and froglet.

Plants: seeds, bulbs, growth, plant, compare, predict, investigate, control, experiment, method, photosynthesis, carbon dioxide, oxygen, glucose, energy, pollination, life cycle, germination, reproduction, seedling, manure, crop, insulate, thrive, healthy, forest, desert, adapt, condition and survive.

Materials: material, property, suitable, object, brick, bridge, triangle, obstacle, structure, construction, stretchy, elastic, floppy, hinder, limit, bend, twist, squash, stretch, force, mackintosh, protective, fluorescent, safety, waterproof, John McAdam, merchant, bound, highway and road.

Living things and their habitats: senses, nutrition, reproduce, excrete, respire, habitat, microhabitat, fungi, survive, shelter, antennae, suitable, condition, colony, insect, producer, consumer, herbivore, carnivore, omnivore, food chain, life cycle, nutrients, rot, caterpillar, automated, frozen food, forklift truck, refrigerated lorry, canned, habitat, microhabitat, organism, environment, mate, rainforest, moisture, extinct, climate, endangered, biodiversity, deforestation, poaching, pollution, rainforest, plankton, ocean, ecosystem, coral reef, trench, Antarctic, Arctic, caribou, narwhal, tundra, earthworm, desert, lizard, cactus and pond.