Year 3 Science

Topic	Curriculum information	Forest School link
Rocks	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.	Children understand that rock is a natural occurring material and can name some types of rocks – brick, flint, slate etc and that different rocks have different properties. Children love to find and play with rocks so they are always looking at the properties of rocks i.e. different sizes (including sizes of the grain or Crystal within it).
	Recognise that soils are made from rocks and organic matter.	Children enjoy learning about soil and what it is made up of - small particles of rock possibly mixed with plant and animal materials (organic matter). These features affect the properties of the soil.
	Describe in simple terms how fossils are formed when things that have lived are trapped within rock.	Children show an interest in fossils and share their knowledge of fossils – how they were formed millions of years ago by being trapped within rock.
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.	We look at berries, nuts, leaves, seeds, or fungi and discuss which animals in the forest eat them and why. Children sometimes compare what animals eat in the forest with what they eat and talk about how food gives them energy for running, climbing, and exploring etc.
	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	Children enjoy playing games in forest school as this may include moving like an animal etc - crawl like foxes, hop like rabbits, or stretch like owls. We have also found bones in Forest school which sparks conversations around what animal/bird we think the bone belonged to.

Forces and Magnets	Compare how things move on different surfaces Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance.	Children think about the push and pull forces when playing in Forest School for example - metal pan on mud, metal tray on wood, balancing on a log, walking on ice etc. They discuss how the surface the object is moving on can either help the object to move or hinder the objects movement. – the ice is making it too slippery to walk on. For some forces to act there must be contact e.g. a hand pushing a swing, the wind pushing the trees, pushing force to push down the see-saw etc.
	Observe how magnets attract or repel each other and attract some materials and not others.	Not applicable to Forest school.
	Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials Describe magnets as having 2 poles Predict whether 2 magnets will attract or repel each other, depending on which poles are facing.	Not applicable to Forest school.
Light	Recognise that they need light in order to see things and that dark is the absence of light Notice that light is reflected from surfaces.	Children know that the sun is a source of light and so is a fire.
	Recognise that light from the sun can be dangerous and that there are ways to protect their eyes	Children are aware that the light from the sun can damage our eyes so we mustn't look directly at it. To protect our eyes from the sun we wear sunglasses.
	Recognise that shadows are formed when the light from a light source is blocked by an opaque object. Find patterns in the way that the size of shadows changes.	Children love to investigate shadows – they chase each other's shadows. They also like to place objects in the light source from the sun to form shadows – we can draw these or investigate how the shadow moves/changes as the sun moves or gets covered by a cloud etc.
Plants	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.	Children learn that many plants have roots, stems/trunks, leaves and flowers/blossom.

	Investigate the way in which water is transported within plants Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	Children learn that the stem transports the water and nutrients/minerals around the plant. Leaves use sunlight and and water to produce the plants food. Plants produce flowers which enable the plant to reproduce. Pollen - produced by the male part of the flower, is transferred to the female part of the flower - pollination.
	Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.	Children know that plants etc need sun, water, air and soil to grow and remain healthy. They are also aware that they need the space/room to grow in order to establish and receive enough of what they need in order to grow.

Vocabulary:

Animals including humans: nutrition, carbohydrate, protein, vitamin, mineral, nutrition label, portion, energy, balanced, diet, vertebrate, invertebrate, endoskeleton, exoskeleton, hydrostatic skeleton, humerus, ulna, radius, tibia, fibular, endoskeleton, vertebrate, skull, rib cage, spine, muscle, contract, hamstrings, biceps and diaphragm.

Plants: nutrients, fertiliser, nursery, potassium, stunted, chlorophyll, stomata, xylem, photosynthesis, UV light, xylem, phloem, absorb, stomata, transpiration, anther, stigma, style, filament, reproduction, pollination, pollen, nectar, seed dispersal, pollinator, germination, vulnerable, anchor, sapling and formation.

Rocks: igneous rocks, intrusive igneous rock, extrusive igneous rock, crystals, magma, sedimentary rock, metamorphic rock, limestone, marble, sandstone, weathering, chemical weathering, physical weathering, biological weathering, acid rain, appearance, texture, submerged, erosion, receding, fossil, extinct, sediment, embedded, amber, decompose, fragments, clay soil, chalky soil and sandy soil.

Forces and Magnets: force, contact force, non-contact forces, air resistance, friction, motion, surface, resistance, texture, tilt, magnet, attract, repel, bar magnet, horseshoe magnet, magnetism, magnetic, magnetic field, iron, steel, non-contact forces, magnetism, attract, non-magnetic materials, recycle, compass, magnetic needle, magnetic north, direction and orienteering.

Light: light, source, natural, artificial, reflect, vitamin D, ultraviolet rays, sunburn, exposure, protection, fluorescent, high visibility, reflective, surface, materials, shadow, opaque, sundial, rays, blocks, position, cast, opposite, direction, length, size, shape, closer, further and puppet.