Science Curriculum – Year 3

Key: Biology Physics Chemistry

Plants

- I can identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
- I can explore the requirements of plants for life and growth (air, light, water, nutrients fro soil, and room to grow) and how they vary from plant to plant
- I can investigate the way in which water is transported within plants
- I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Ideas for Working Scientifically:
Compare the effect of different factors on plant growth e.g. amount of light/fertiliser;discover how seeds are formed by observing different stages of plant life cycles; look for patterns in structure of fruits that relate to how seeds are dispersed;observe how water is transported in plants e.g. by putting cut, white carnations in coloured water.

Animals, including humans

- I can 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
- I can identify that humans and some other animals have skeletons and muscles for support, protection and movement.

Ideas for working scientifically:
Identify & group animals with and without skeletons, observe & compare their movements; what would happen if humans didn't have skeletons' compare & contrast diets of different animals (inc.their pets) & decide ways of grouping them according to what they eat; research different food groups and how they keep us healthy – design meals based on what they find out.

Rocks

- I can compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
- I can describe in simple terms how fossils are formed when things that have lived are trapped within rock
- I can recognise that soils are made from rocks and organic matter.

Ideas for working scientifically:
Observe rocks inc.those used in buildings & gravestones, explore how & why they might have changed over time; use hand lens or microscope to ID and classify rocks according to whether they have grains or crystals & if have fossils in them; explore how fossils are formed.

Light

- I can recognise that they need light in order to see things and that dark is the absence of light
- I can notice that light is reflected from surfaces
- I can recognise that light from the sun can be dangerous and that there are ways to protect their eyes
- I can recognise that shadows are formed when the light from a light source is blocked by a solid object
- I can find patterns in the way that the size of shadows change.

Ideas for working scientifically:
Look for patterns in what happens to shadows when the light source moves or the distance between the light sources and the object changes.

Forces and magnets

- I can compare how things move on different surfaces
- I can notice that some forces need contact between two objects, but magnetic forces can act at a distance
- I can observe how magnets attract or repel each other and attract some materials and not others describe magnets as having two poles
- I can predict whether two magnets will attract or repel each other, depending on which poles are facing.
- I can 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

Ideas for working scientifically:
Raise ideas & carry out tests to find out how far things move on different surfaces - gather & record data to find answers to their q's; explore strengths of different magnets & find fair way of comparing them; sort materials into magnetic & non-mag; look for patterns in the way that magnets behave in relation to each other & what might affect this e.g. strength of magnet or which pole faces another; identify how these properties make magnets useful in everyday items and suggest creative uses for different magnets.