



# A guide to science in LKS2



# Curriculum

## Plants

- Identify and describe the functions of different parts of flowering plants
- Explore the requirements of plants for life and growth and how they vary from plant to plant
- 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

## Animals, including humans

- Identify that animals, including humans, need the right types of amount of nutrition, and that they cannot make their own food
- Identify that humans and some other animals have skeletons and muscles for support, protection and movement
- Describe the simple functions of the basic parts of the digestive system in humans
- Identify the different types of teeth in humans
- Construct and interpret a variety of food chains

# Curriculum

## Living things and their habitats

- Recognise that living things can be grouped in a variety of different ways
- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- Recognise that environments can change and that this can pose dangers to living things

## Materials - Rocks

- Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
- Describe in simple terms how fossils are formed
- Recognise that soils are made from rocks with organic matter

# Curriculum

## Materials – States of Matter

- Compare and group materials together, according to whether they are solids, liquids or gases
- Observe that some materials change state when they are heated or cooled
- Identify the part played by evaporation and condensation in the water cycle

## 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
- Recognise that the lights from the sun can be dangerous
- Recognise that shadows are formed when the light from a light source is blocked by a solid object
- Find patterns in the way that the size of shadows changes

# Curriculum

## Forces and Magnets

- Compare how things move on different surfaces
- Notice that some forces need contact between two objects, but magnetic forces can act at a distance
- Observe how magnets attract or repel each other and attract some material and not others
- 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 two poles
- Predict whether two magnets will attract or repel each other, depending on which poles are facing

## Sound

- Identify how sounds are made
- Recognise that vibrations from sounds travel through a medium to the ear
- Find patterns between the pitch of a sound and features of the object that produces it
- Find patterns between the volume of a sound and features of the strength of the vibrations that produced it
- Recognise that sounds get fainter as the distance from the sound increases

# Curriculum

## Working Scientifically

- Raising relevant questions
- Setting up simple practical enquiries
- Making observations and taking measurements
- Recording findings in various ways
- Gathering and presenting data

- Presenting results and conclusions in various ways
- Using results to draw conclusion
- Using simple keys to classify
- Using scientific evidence to answer questions

# How can I develop my child's understanding of science at home?

- Read non fiction/fact based books with scientific themes.
- Walk in the park or garden – notice plants and habitats.
- Visit STEM themed museums.
- Collect and sort rocks and the beach.
- Look at weather forecasts and talk about sun safety and shadows.
- Discuss the life cycle and needs of family pets.
- Cooking – look at changes that occur during mixing and heating

## Websites and places to visit

- BBC bitesize <https://www.bbc.co.uk/bitesize/levels/z3g4d2>
- MET Office <https://www.metoffice.gov.uk/>
- RSPB Wild Challenge <https://www.rspb.org.uk/fun-and-learning/for-families/family-wild-challenge/>
- Centre for Life [Home | Centre For Life](#)
- Head of Steam Museum <https://www.head-of-steam.co.uk/>
- Discovery Museum <https://discoverymuseum.org.uk/>
- Locomotion <https://www.locomotion.org.uk/home>
- Saltholme Nature Reserve <https://www.rspb.org.uk/reserves-and-events/reserves-a-z/saltholme/>