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| **Science Progression Overview – Year 3** | | | | | | | |
|  | | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Topic | | How does your garden grow? | The Power of Forces | Rock Detectives | Amazing bodies | Can you see me? | Our changing world |
| Subject | | Science | Science | Science |  |  |  |
| **Week 1** | Can I | Can I share what I know about the different parts of plants and ask questions about plants for further investigating? | Can I explore how a force is required to make something start to move? | Can I examine different rocks in order to describe, compare and contrast their properties? | Can I identify the important things that need to be considered in order to survive? | Can I explore how we need light to see things and why some things are easier to see than others? | Can I make observations and collect evidence about how trees change as part of a seasonal cycle? |
| Skills & Knowledge | Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers | Notice that some forces need contact between two objects, but magnetic forces can act at a distance. | Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties | 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. | Recognise that light is needed in order to see things and that dark is the absence of light. | Identify and describe the functions of different parts of ﬂowering plants: roots, stem, leaves and ﬂowers |
| Activity | Children draw a diagram of a ﬂowering plant with labels to show which parts they know. | Children explore how to make objects start to move and show the forces used in a diagram. | Children observe, draw and label three rocks, and then compare and contrast these rocks with one other. | Ask children to think of ways to eat, drink, sleep and keep warm and dry if stranded. | Get children to investigate what they can see when there is less light. | Children will choose and map a tree, photograph it and draw its leaves. |
| **Week 2** | Can I | Can I make detailed observations of the similarities and differences in a variety of leaves, and relate these to the function of leaves? | Can I explore how air can make things move? | Can I sort rocks according to their properties using a key? | Can I classify food and understand a balanced diet? | Can I investigate how different objects reﬂect different amounts of light? | Can I make observations and collect evidence about our changing world over time? |
| Skills & Knowledge | Identify and describe the functions of different parts of ﬂowering plants: roots, stem/trunk, leaves and ﬂowers | Notice that some forces need contact between two objects but magnetic forces can act at a distance. | Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties | 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. | Notice that light is reﬂected from surfaces. | 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 |
| Activity | Children use observations to compare and identify leaves. Children sort and classify leaves | Children observe and compare how windmills work outside. | Children sort rocks according to their properties | Ask children to sort foods into different types of food. | Ask children to investigate which is the shiniest object. | Children will collect different types of seeds, and draw and photograph them |
| **Week 3** | Can I | Can I plan and set up a fair test investigation to ﬁnd out the effect of removing the leaves from a growing plant? | Can I explore how objects move on different materials? | Can I test and compare rocks to identify which is the hardest? | Can I classify food and understand a balanced diet? | Can I explain how a mirror works and describe how images in mirrors may look ‘different’? | Can I make observations and collect evidence about our changing world over time? |
| Skills & Knowledge | Identify and describe the functions of different parts of ﬂowering plants: roots, stem/trunk, leaves and ﬂowers. | Compare how things move on different surfaces. | Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties | 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 | Notice that light is reﬂected from surfaces. | Identify and describe the functions of different parts of ﬂowering plants: roots, stem, leaves and ﬂowers. |
| Activity | Children investigate how removing all the leaves affects plant growth | Children explore how objects move over different surfaces.  Children investigate the effect of different materials on the way an object slides down a ramp. | Children will test the hardness of a variety of rocks and make comparisons between them. | Children will sort pictures of food into the different food groups.  Children will plan a day’s food, listing each type of food and the food groups to which it belongs. | Children undertake two investigations to test how mirrors reﬂect. | Children ﬁnd an example of as many different ﬂowers as possible and use these to create a picture on the ground.  Children will match a plant to a colour, record their ﬁndings and take a photograph. |
| **Week 4** | Can I | Can I explain observations of water being transported in plants and make predictions based on observations? | Can I explore which materials are magnetic? | Can I ﬁnd out which rocks are waterproof? | Can I identify the similarities and differences between skeletons and explore their functions? | Can I identify how shadows are formed? | Can I make observations and collect evidence about berries that are seen on plants over time? |
| Skills & Knowledge | Investigate the way in which water is transported within plants. | 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. | Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties | Identify that humans and some animals have skeletons and muscles for support, protection and movement. | Recognise that shadows are formed when the light from a light source is blocked by a solid object. | Identify and describe the functions of different parts of ﬂowering plants: roots, stem, leaves and ﬂowers |
| Activity | Children to do an experiment with celery, water and food colouring. Children draw and label a diagram to show what they think will happen to the celery. | Children use a magnet to sort magnetic and non-magnetic objects. | Children will test whether a variety of rocks absorb water or not. | Children will sort animals according to whether they have a skeleton or not. | Ask children to investigate shadows in the room and then make hand shadows? | Children will draw different fruits and berries, match them to a colour, record their ﬁndings and present their observations as a pictogram. |
| **Week 5** | Can I | Can I present information about the functions of the stem? | Can I measure the strength of a magnet in different ways? | Can I explain that soils are made partly from rock that has broken down into smaller particles and describe some of the properties of different types of soils? | Can I apply knowledge of skeletons to design a vertebrate and its skeleton? | Can I identify what affects the shape of a shadow? | Can I make observations and collect evidence about our changing world over time? |
| Skills & Knowledge | Investigate the way in which water is transported within plants | Notice that some forces need contact between two objects, but magnetic forces can act at a distance. | Recognise that soils are made from rocks and organic material | Identify that humans and some animals have skeletons and muscles for support, protection and movement. | Recognise that shadows are formed when the light from a light source is blocked by a solid object. | Explore the part flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal |
| Activity | Children produce a poster titled ‘Why plants need stems’. | Children test magnets and record results in a table. | Children study three different soils and record their observations. | Children will create an imaginary animal, draw its skeleton and label the animal’s main features. | Children describe how shadows are formed and create diagrams to explain how shadows are formed. | Children to go out and collect information about the number and different kinds of insects that visit plants around the school grounds.  Children to interpret data on a tally chart and draw an insect they observed. |
| **Week 6** | Can I | Can I name the main stages of a ﬂowering plant’s life cycle and present them in a sequenced diagram? | Can I identify the two poles on a magnet and investigate how magnets attract or repel each other? | Can I investigate and test different kinds of soils to see how quickly water drains through? | Can I identify different muscles in our body and what they do? |  | Can I make observations and gather evidence about plants in our changing world over time? |
| Skills & Knowledge | Explore the part that ﬂowers play in the life cycle of ﬂowering plants, including pollination, seed formation and seed dispersal. | Observe how magnets attract or repel each other and attract some materials and not others; describe magnets as having two poles; predict whether two magnets will attract or repel each other, depending on which poles are facing. | Recognise that soils are made from rocks and organic material. | Identify that humans and some animals have skeletons and muscles for support, protection and movement. |  | 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. |
| Activity | Children complete the life cycle of an apple tree https://www.twinkl.co.uk/resources/life-processes-and-living-things/life-cycles/apple-tree-life-cycle | Children investigate the effect of bringing two magnets together.  (Lesson 7) | Children test three different soil samples to see how quickly water drains through and record their results in a table. | Children will explore seven different muscles and identify where in the body speciﬁc muscles are. |  | Children use a large hoop to deﬁne an area for a survey and mark on their survey the plants they can see, recording in detail leaf and ﬂower shapes and colours (in particular) for any plants they cannot name. |
| **Week 7** | Can I |  |  |  |  |  |  |
| Skills & Knowledge |  |  |  |  |  |  |
| Activity |  |  |  |  |  |  |