

Science - Year 3 and Year 4

Below are the science units that children will study across Year 3 and Year 4 at The Rydal Academy. They are split into half terms or terms depending on the length of the unit. There is a brief explanation of each focus area and suggestions for activities that you can do with your child at home to support their learning.

Year 3		Year 4	
Autumn 1	<p>Rocks</p> <p>Children will learn about what rocks can be made from and how they can be weathered. We will also observe and classify a range of rocks.</p> <p>Can you spot any different types of rock on your journey to school? The link below has some information about fossils. Can you read it together? https://www.bbc.co.uk/bitesize/topics/z9bbkqt/articles/z22g7p3</p>	Autumn 1	<p>Animals, including humans – Food and Digestion</p> <p>We will study the journey of a cheese sandwich through our bodies, learning all the parts of the digestive system on the way.</p> <p>Can budding doctors, identify the parts of the body that help with digestion and describe their function? Watch these short clips to help explain each part of the digestive process. https://www.bbc.co.uk/bitesize/topics/z27kng8</p>
Autumn 2	<p>Forces and magnets</p> <p>Children will learn all about magnetism, how magnetic fields work and how the Earth is like a magnet. We will also look at how objects move on different surfaces.</p> <p>Can you make a small ramp at home and test how different objects move? You could use a book and a box to make your ramp.</p>	Autumn 2	<p>States of matter – Solids, liquids and gases</p> <p>Children will compare, group and observe materials in different states (solid, liquid, gas). Children will experiment with materials by observing how they change when they are heated or cooled. Children will explore this in detail regarding water as ice, liquid or vapour in the water cycle.</p> <p>You could make chocolate crispy/cornflake cakes together by melting the chocolate and watching it change from a solid to a liquid. Here's a recipe. https://www.bbcgoodfood.com/recipes/chocolate-rice-krispie-cakes</p>
Spring 1	<p>Animals, including humans – What makes us</p> <p>Children will learn about the skeletal and muscular systems, how our brain makes us act as we do and how we gain our characteristics. <i>We will have a visitor from a Durham University sports' scientist.</i></p> <p>Can you look at different family pictures and discuss what characteristics are inherited?</p>	Spring 1	<p>Electricity – circuits, conductors and insulators</p> <p>Children will investigate how to make a series circuit and learn what electrical components are needed to make a bulb light or a buzzer sound. We will also investigate which materials are good insulators or conductors in an electrical circuit. <i>Insulators do not allow electricity to flow and conductors do allow electricity to flow.</i></p> <p>How many electrical appliances can you find in the house? Try to find one for each letter of the alphabet. https://www.bbc.co.uk/bitesize/topics/z2882hv</p>
Spring 2	<p>Plants – Life cycles</p> <p>Children will learn all about plant life cycles. We will find out how plants make their own plant food and what each part of the flower does. We will also look at pollination and seed dispersal.</p>	Spring 2	<p>Classifying Living Things</p> <p>Children will observe, research and classify living things such as insects, plants, birds, fish, mammals, reptiles and amphibians. We will also have a <i>visitor from a Durham University Biologist</i> to help us use keys to classify creatures.</p> <p>Watch these clips together to find out more. https://www.bbc.co.uk/bitesize/topics/zn22pv4</p>
Summer 1	<p>Plants - Exploring the world of plants</p> <p>Children will look at plants from all over the world, including extraordinary plants and fungi. We will also look at plant reproduction and how we can help to maintain the rainforests.</p> <p>Below is a link to a quiz! Can you complete the quiz together at home? https://www.educationquizzes.com/ks2/science/life-cycles--plants/</p>	Summer 1	<p>Living things and their habitats – Nature and the Environment</p> <p>Children will explore different habitats and research how the environment affects these different habitats. Children will have a <i>visit to Teesmouth.</i></p> <p>What creatures can you find together outside, in a yard, garden, wall, park?</p>
Summer 2	<p>Light</p> <p>Children will discover what light is and how it acts. We will focus on how light travels, reflects and how shadows are formed.</p> <p>Can you use a torch at home to create different shadows puppets? What happens as you move closer or further away from the wall/torch?</p>	Summer 2	<p>Sound</p> <p>Children will investigate sound and vibrations, how sound is made and how we hear sound through our ears.</p> <p>Make a homemade instrument by putting rice, pasta or stones in an old cardboard box, tube or plastic tub. Decorate your instrument, could you add ribbons, string, paper curls? What different sounds can you make?</p>