

## Science - Year 5 and Year 6

Below are the science units that children will study across Year 5 and Year 6 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 5		Year 6	
<b>Autumn 1</b>	<p><b>Space</b></p> <p>Children will learn about the solar system, the planets including Earth, the sun and the moon and how they move in relation to each other creating day and night and the seasons.</p> <p>Watch these helpful clips together to learn more about outer space.  <a href="https://www.bbc.co.uk/bitesize/topics/zdrrd2p/articles/ztsqj6f">https://www.bbc.co.uk/bitesize/topics/zdrrd2p/articles/ztsqj6f</a></p>	<b>Light</b>	<p>Recapping on how shadows are made from Y3, children will also investigate how light travels and how objects are seen by the human eye. Children will investigate the way that light behaves, including light sources, reflection and prisms. They should talk about what happens and make predictions.</p> <p>Label the eye diagram together using the descriptions.  <a href="https://dryuc24b85zbr.cloudfront.net/tes/resources/6065444/image?width=500&amp;height=500&amp;version=1389253722000">https://dryuc24b85zbr.cloudfront.net/tes/resources/6065444/image?width=500&amp;height=500&amp;version=1389253722000</a></p>
<b>Autumn 2</b>	<p><b>Forces</b></p> <p>Children will investigate the forces of gravity, air resistance, water resistance, friction and how gears can change forces.</p> <p>Watch these helpful clips together to learn more about outer forces.  <a href="https://www.bbc.co.uk/bitesize/topics/znmmn39">https://www.bbc.co.uk/bitesize/topics/znmmn39</a></p>	<b>Electricity</b>	<p>Children will investigate the components of series circuits and the symbols used for different components. Children will construct circuits to operate traffic lights or a burglar alarm.</p> <p>Try this quiz together at home.  <a href="https://www.educationquizzes.com/ks2/science/electrical-circuits/">https://www.educationquizzes.com/ks2/science/electrical-circuits/</a></p>
<b>Spring 1</b>	<p><b>Properties of materials</b></p> <p>Children will Investigate the properties of solids, liquids and gases, solutions and changes in state.</p> <p>Use evidence from comparative and fair tests, to investigate the properties of metals, wood and plastic such as magnetism, solubility, flexibility, buoyancy.</p> <p>Try this forces quiz together at home.  <a href="https://www.educationquizzes.com/ks2/science/forces-03/">https://www.educationquizzes.com/ks2/science/forces-03/</a></p>	<b>Living things and their habitats</b>	<p>Children will classify animals, plants and microorganisms according to the animal kingdom groupings. Pupils will observe animals in known habitats and research others in unknown habitats, such as deserts and know where to classify them.</p> <p>Try this quiz together.  <a href="https://www.educationquizzes.com/ks3/science/variation-and-classification-02/">https://www.educationquizzes.com/ks3/science/variation-and-classification-02/</a></p>
<b>Spring 2</b>	<p><b>Changes of materials</b></p> <p>Children will demonstrate that dissolving, mixing and changes of state can be reversible changes through sieving or evaporation. Also, children will explain that some changes such as burning can result in the formation of new materials which is usually irreversible.</p> <p><b>Visitor:</b> We will have a visitor from a <a href="#">Durham University chemist</a>.</p> <p>Safely heat or burn different foods (marshmallows, bread, chocolate) over a candle and observe the changes. Are they reversible or irreversible? (Discuss matches safety at the same time.)</p>	<b>Animals, including humans – Blood and Transportation – The Heart.</b>	<p>Children will identify the circulatory system parts and study the heart and it's function.</p> <p>Watch the video and draw and label a diagram of the heart together.  <a href="https://www.bbc.co.uk/bitesize/topics/zv9qhyc/articles/zm6xvk7">https://www.bbc.co.uk/bitesize/topics/zv9qhyc/articles/zm6xvk7</a></p>
<b>Summer 1</b>	<p><b>Living things and their habitats</b></p> <p>Children will describe the differences in the life cycles and reproduction of mammals, amphibians, insects, birds and flowers in different places.</p> <p><b>Visitor:</b> <a href="#">Biologist</a> Durham University</p> <p>Below is a link to a quiz! Can you complete the quiz together at home?  <a href="https://www.educationquizzes.com/ks2/science/habitats-and-ecosystems/">https://www.educationquizzes.com/ks2/science/habitats-and-ecosystems/</a></p>	<b>Animals, including humans and Health.</b>	<p>Children will scientifically investigate the effects of drugs, exercise, nutrients and diet on the human body. Pupils will work scientifically by exploring the work of scientists and scientific research about the relationship between these and personal health.</p> <p><b>Visitor:</b> <a href="#">Sports' scientist</a>.  <b>Nurse:</b> <a href="#">Health Talk</a></p> <p>Watch these helpful videos together about healthy lifestyles.  <a href="https://www.bbc.co.uk/bitesize/topics/zrffr82/resources/2">https://www.bbc.co.uk/bitesize/topics/zrffr82/resources/2</a></p>

<b>Summer 2</b>	<p><b>Animals, including humans – The Human Life Cycle</b> Children will investigate and describe the changes of humans and mammals as they get older and how their needs change. <b>Visitor:</b> <a href="#">School Nurse</a> Interview an older person in your family about how getting older affects them.</p>	<p><b>Evolution and inheritance</b> Children will investigate how living things have evolved, how they vary with inheritance and how they adapt to their environments. Children will look at animal skulls and teeth with a visiting Anthropologist. Visitor: <a href="#">Anthropologist Durham University</a> Watch these videos together for more information. <a href="https://www.bbc.co.uk/bitesize/topics/zvhhvcw">https://www.bbc.co.uk/bitesize/topics/zvhhvcw</a></p>
-----------------	---	--