

Goathland Primary School KS2 Autumn Term 1 Science Overview. (Year 1)

<u>Autumn Term 1.</u>	Shining the Light.					
	Session 1 & 2	Session 3 & 4	Session 5 & 6	Session 7 & 8	Session 9 & 10	Session 11 & 12
Activities & Learning Outcomes	<p>Recognise that they need light in order to see things & that dark is the absence of light</p> <p>To discover through active investigation that without light you cannot see. Actively investigate the nature of darkness, light and sight with a torch, a cardboard box and pencil holes</p> <p>To learn through investigation that light travels in straight lines. Use their findings to draw conclusions on how light travels and our dependence on light to see</p>	<p>Notice that light is reflected from surfaces</p> <p>Investigate which colours show up best in the dark and which are hard to see Predict and then investigate which colours show up best and least in the dark.</p> <p>Discover why shiny and reflective materials appear to glitter or shine in torchlight Investigate the effect of shining a torch on various objects including reflective materials.</p>	<p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>Investigate how light reflects off mirrors and other shiny surfaces to give a clear reflection Learn that light bouncing off a mirror gives a clear reflection.</p> <p>Investigate how writing is reflected back to front and how back to front writing looks normal when viewed through a mirror Discover that a reflection is a back-to-front image.</p> <p>Experiment with angles of reflection using strings attached to a mirror Investigate the concept of angles of reflection in a mirror using string & discover that light is reflected off a mirror at the same angle as it hits it.</p>	<p>Recognise that shadows are formed when the light from a light source is blocked by an opaque object</p> <p>Discover why opaque, transparent and translucent objects cast different shadows To investigate how objects made from different materials cast shadows.</p> <p>Investigate how the orientation of an object affects the shadow by making hand shadows To understand how a shadow changes depending on the object's orientation.</p> <p>Investigate how shadows can be seen from the other side of a translucent screen</p>	<p>Find patterns in the way that the size of shadows change</p> <p>Freely explore how the distance of the light source affects the size of a shadow Look for patterns and try to answer questions To actively investigate how shadows change as the light source is moved.</p> <p>Take accurate measurements of shadows whilst controlling the distance of the light source To take measurements and look for patterns in data to answer scientific questions. To plot results on a graph, adding a title, labels and values to the axes.</p> <p>Observe a demonstration of light travelling in straight lines to explain the shadow data</p>	<p>Actively investigate the occurrence rainbows using bubbles, CDs and prisms Investigate the occurrence of rainbows in a practical way using bubbles, CDs and prisms.</p> <p>Use secondary sources to research how rainbows are formed Research a variety of secondary sources to learn how rainbows are formed.</p> <p>Take part in a quiz to assess knowledge on light.</p> <p>Review of all Light objectives covered.</p>

