

# Science: Key Stage 2- Year 4

## Learning Challenges

<b>Which wild animals and plants thrive in our local area?</b>	<b>Why is the sound made by +++ enjoyed by so many?</b>	<b>What happens to the food we eat?</b>
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## National Curriculum content

<b>Biology – living things and their habitats</b>	<b>Physics- Sound</b>	<b>Biology – Animals including humans</b>
<p><i>Recognise that living things can be grouped in a variety of ways</i>  <i>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</i>  <i>Recognise that environments can change and that this can sometimes pose dangers o living things</i></p>	<p><i>Identify how sounds are made, associating some of them with vibrating</i>  <i>Recognise that vibration from sound travel through a medium to the ear</i>  <i>Find patterns between pitch of a sound</i>  <i>Find patterns between the volume of a sound</i>  <i>Recognise that sounds get fainter and the distance from the sound increases</i></p>	<p><i>Construct and interpret a variety of food chains, identifying producers, predators and prey</i>  <i>Describe the basic functions of the basic parts of the digestive system in humans</i>  <i>Identify the different types of teeth in humans and identify their simple functions</i></p>

## Key Knowledge

<ul style="list-style-type: none"> <li>Use classification keys to group, identify and name living things</li> <li>Know how changes to an environment could endanger living things</li> </ul>	<ul style="list-style-type: none"> <li>Know how sound is made, associating some of them with vibration</li> <li>Know how a sound travel from a source to our ears</li> <li>Know the correlation between pitch and the object producing the sound</li> <li>Know the correlation between volume of a sound and the strength of vibrations that produced it</li> <li>Know what happens to a sound as it travels away from its source</li> </ul>	<ul style="list-style-type: none"> <li>Identify and name parts of the human digestive system</li> <li>Know the functions of the organs in the digestive system</li> <li>Identify and know different types of human teeth</li> <li>Use and construct food chains to identify producers, predators and prey</li> </ul>
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## Learning Challenges

<b>How would you cope for a day without electricity?</b>	<b>How would we survive without water?</b>	
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## National Curriculum content

<b>Physics- Electricity</b>	<b>Chemistry – States of matter</b>	<b>Scientist and Inventors</b>
<p><i>Identify common appliances that run on electricity</i>  <i>Construct a simple series circuit, naming parts</i>  <i>Identify whether a lamp will light in a series circuit</i>  <i>Recognise that a switch opens and closes a circuit</i>  <i>Recognise some common conductors and insulators</i></p>	<p><i>Compare and group materials according to whether they are solid, liquid, gas</i>  <i>Observe that some materials change state when they are heated/cooled</i>  <i>Identify the part played by evaporation and condensation in the water cycle</i></p>	

## Key Knowledge

<ul style="list-style-type: none"> <li>Identify and name appliances that require electricity to function</li> <li>Construct a series circuit</li> <li>Identify and name components in a series circuit</li> <li>Predict and test whether a lamp will light within a circuit</li> <li>Know the function of a switch</li> <li>Know the difference between a conductor and insulator, giving examples.</li> </ul>	<ul style="list-style-type: none"> <li>Know the temperature at which materials change state</li> <li>Know about and explore how some materials can change state</li> <li>Know the part played by evaporation and condensation in the water cycle</li> <li>Group materials based on their state of matter (solid, liquid, gas)</li> </ul>	
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