



Halesowen C of E Primary School

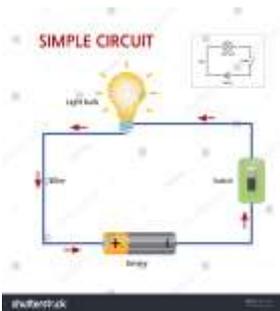
Home Learning

DATE: 4th -7th May

YEAR GROUP: Year 4

SCIENCE FOCUS WEEK

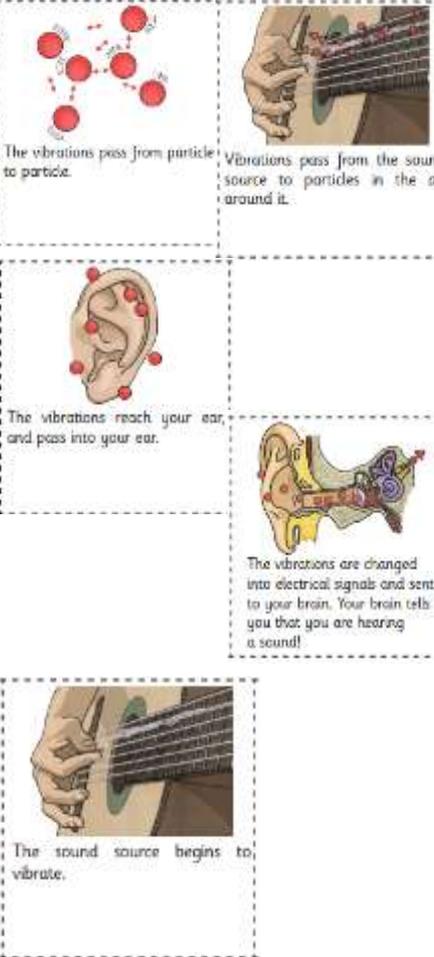
THEME: Electricity / Sound

DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
QUESTION	How much electricity do I use in my house?	Can I use household items to represent a circuit?	How are electricity and sound connected?	Can you hear underwater?
ACTIVITIES	<p>Go around your house into different rooms and search for things that use electricity.</p> <p>Can you predict which room might have the most electrical objects?</p> <p>Create a tally chart on each room and how many electrical items there is.</p> <ul style="list-style-type: none"> - Lounge - Bedroom - Kitchen - Bathroom - Any others you may have. <p>Once all rooms have been searched can you create a bar chart to show which room has the most electrical items in?</p>	<p>Electricity travels through a circuit.</p>  <p>Watch this to see how a simple circuit works.</p> <p>https://www.bbc.co.uk/bitesize/clips/zq3fb9q</p> <p>At home you won't have all the things you need to make a circuit but you can make a pretend one using</p>	<p>How do you think electricity and sound are connected? Bullet point ideas?</p> <p>https://www.youtube.com/watch?v=gdGyvGPZ1G0</p> <p>A vibration powered generator is a type of electric generator that converts the kinetic energy from vibration into electrical energy. The vibration may be from sound pressure waves.</p> <p>VIBRATIONS electricity and sound travels by using VIBRATIONS.</p> <p>KEY VOCABULARY FOR SOUND: <i>Vibration, Sound, Hear, Pitch, Volume, Loud, Faint and Air.</i></p> <p>ACTIVITY 1:</p>	<p>There are 2 activities you can choose from.</p> <p>Things you will need</p> <ul style="list-style-type: none"> - A large bowl half full of water (or use your bath) - An empty plastic bottle. - 2 hard things e.g. pebbles, marbles, metal spoons or stones. <p>While the bath water/filling the bowl, listen to the sound it makes splashing into the tub.</p> <p>Can you write a prediction about whether or not you think you can hear underwater? Explain why you think you can or cannot. Will it be easier or harder the listen? Will the sounds be louder?</p> <p>Gently click the 2 hard things together – how do they sound?</p> <p>ACTIVITY 1: Place your bowl of water on a table or the ground so it is no higher than your waist.</p>



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		<p>household objects can you represent a circuit.</p> <p>You will need something to represent each of the following:</p> <ul style="list-style-type: none">• Battery• Wires• bulb <p>You can then use sweets/marbles/toys/ fruit</p> <p>Remember a circuit how to be joined up so the electricity can flow around.</p> <p>In your circuit think answer these questions</p> <ul style="list-style-type: none">- What do you think happens when the electricity current gets to the light bulb?- What would happen if we put a switch in the circuit?- What would happen if the circuit wasn't all joined up?	<p>Can you think about and put these photos in the correct order.</p>  <p>The vibrations pass from the sound source to particles in the air around it.</p> <p>The vibrations reach your ear, and pass into your ear.</p> <p>The vibrations are changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound!</p> <p>The sound source begins to vibrate.</p>	<p>VERY CAREFULLY cut the bottom of your plastic cup. Ask an adult to do this for you. Put the cup, cut side down, into the bowl of water and put your ear up against the hole at the other end.</p> <p>Ask someone in your house or you can gently tap the metal spoons or other things together under water. What can you hear?</p> <p>ACTIVITY 2: If you are using a bath then with your head above the water, hold two spoons below the surface and clink them together, listening to the sound. Then, put one of your ears under the water, clink the spoons, and listen.</p> <p>DO NOT PUT YOUR HEAD UNDER THE WATER!</p> <p>Do not read this next part until you have completed your investigation.</p> <p><u>WHATS GOING ON?</u></p> <p>Sound travels in waves caused by vibrations, bumping the molecules around them together.</p> <p>Sound that's generated underwater stays underwater; very little sound passes from</p>
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			<p>ACTIVITY 2: Using the Key Vocabulary list can you research them and match the definition with the words</p> <p>GAME Can you know now describe one of the words from the key vocabulary list to someone in your house without saying the word you're thinking of?</p> <p>For example my word is 'sound' so I would describe it by saying - it is heard, it travels in waves.</p>	<p>water to air. When your head is out of the water and you listen to a sound made underwater, you don't hear much. But if you put your head under the water, the sound becomes much louder.</p> <p>When might it be useful to hear underwater?</p>
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(Please not Friday would have been a bank holiday in school for VE Day so there is no learning scheduled for then- please see the website later this week for some VE day activities you can do together as a family should you want to)