

Year 6 – Electric Boat
Electronics Materials
Mechanics

Prior Learning

In Year 4 children looked at the properties of materials and how to make them waterproof. In Year 5 they also made electric cards. This planning should amalgamate the two into an electric boat!



Key vocabulary and information

Boat	A small vessel for travelling over water, propelled by oars, sails, or an engine.
Electricity	Electricity is the flow of tiny particles called electrons and protons. It can also mean the energy you get when electrons flow from place to place. It can then power such things as heaters, light bulbs, and computers. Today, electricity provides most of the energy to run the modern world.
Float	To rest on the surface of a liquid, to be carried by water.
Fan assisted	A machine or device that is used for producing a current of air. This is then attached to a propeller to move a vehicle.
Circuit	A circuit is a complete path around which electricity can flow. It must include a source of electricity, such as a battery. Materials that allow electric current to pass through them easily, called conductors, can be used to link the positive and negative ends of a battery, creating a circuit.
Waterproof	Waterproofing is the process of making an object or structure waterproof or water-resistant so that it remains relatively unaffected by water or resisting the ingress of water under specified conditions.
Propeller	A device having a hub fitted with blades that is made to turn rapidly by an engine and that causes a ship, power boat, or airplane to move.

Internet Resources

<https://www.youtube.com/watch?v=TkMt3aDW3CE>
<https://www.youtube.com/watch?v=Q-kn-AVV-1s>
<https://www.tts-group.co.uk/blog/2019/03/05/cross-curricular-stem-class-kit-making-a-fan-boat.html>



To have a successful Boat:

- It needs to be waterproof.
- It should float!
- It needs to move forward in water.