

Learning from Home: Boats

KS2 children aged 7-11 years (can be adapted for KS1 children aged 5-7 years)

Learning Objectives	Resources
<ul style="list-style-type: none"> Understand the different designs of boats and how they were used to carry cargo along canals Understand upthrust and why boats float Identify the effects of water resistance that act between moving surfaces 	<ul style="list-style-type: none"> Building and Carrying - Boats Floating and Sinking How are boats built? Design a Boat Model Narrowboat
Success Criteria	
<ul style="list-style-type: none"> Children will understand the different types of boats and how they were used to carry cargo along canals Children will investigate upthrust and understand why boats float Children will be able to float their own boat made from plasticine/playdough 	
Teaching/Parent Input	
<p>Start by asking the children what they know about boats. Have you seen a boat? Have you ever been on a boat? What was it like? How did it move when you were onboard? What shape was it and how big? What was it made from?</p>	
Activities	
<p>Read: Building and Carrying – Boats to learn all about boats, how they were built, what they carried and who owned them.</p> <p>Do: Floating and sinking activity to learn why boats float in this fun science experiment.</p> <p>Watch: How are boats built? to see how wooden barge Gwendoline was built</p> <p>Play: Design a Boat game (number 10 on the game slider). Design the inside of a narrowboat. What would you need to live or holiday on a boat?</p> <p>Create: a model narrowboat, decorate and name it.</p>	
Suggestions	
<p>Research different types of boats and their uses e.g. a lifeboat at sea.</p> <p>Britain on film: Canals (link below) shows the many different boats which have used canals.</p>	
Plenary	Key Words
<p>Clarify the key words.</p> <p>Do your own floating and sinking experiment using objects at home to reinforce learning.</p> <p>Design your own boat shapes and see if these shapes effect the amount of cargo the boat can carry or move through the water.</p>	<p>KS1: float, sink, gravity, materials, boat</p> <p>KS2: prediction, water resistance, upthrust, streamlining, displacement</p>
Useful websites/external resources	Get Outside Ideas
<p>Build a boat cabin den: https://canalrivertrust.org.uk/media/library/41591.pdf</p> <p>Britain on film: Canals (1963): https://www.youtube.com/watch?v=t-UYeqtv5f4</p> <p>Design a boat with STEM Learning: https://www.stem.org.uk/resources/elibrary/resource/417578/design-boat#&gid=undefined&pid=1</p>	<p>Do the floating and sinking experiment outdoors, with things you have around your home. Beach toys are good. Be safe and have adult supervision.</p>