

# Float a Boat

ACTIVITY OVERVIEW	SUGGESTED TEACHING AND LEARNING SEQUENCE																
<p>In this activity students will work in small groups to construct a model boat that floats using a range of recycled resources. The boats will be used in a class 'Sailing Regatta'.</p> <p>The teacher will share a list of success criteria for the completed boats prior to the planning and production process. The criteria will include buoyancy, use of materials and aesthetics. Once the construction of the boats is well underway the teacher will add a further requirement for the boats – that they have to carry a cargo of 4 marbles.</p> <p>Several enterprising attributes are required in this lesson plan. Students will need to</p> <ul style="list-style-type: none"> <li>• use creative thinking and problem solving skills as they construct their boat,</li> <li>• work well with others and make effective use of time and resources,</li> <li>• be flexible in their design plan to accommodate changed requirements,</li> <li>• monitor their progress against shared success criteria and evaluate their achievements (including their use of enterprising attributes).</li> </ul> <p>It is hoped that students will transfer the skills/strategies learnt here to future Education for Enterprise units.</p>	<ol style="list-style-type: none"> <li>1. The teacher tells students that they are going to work in small groups to make model boats out of recycled resources for a class 'Sailing Regatta'.</li> <li>2. Students are grouped into teams with 2 or 3 members.</li> <li>3. The teacher shares a list of success criteria with students for the completed boats. Suggested criteria could include: the boat can float; students use at least 5 different types of materials to construct the boat; the boat looks like a boat; the boat looks neat and tidy, etc. The teacher also shares a range of recycled materials (resources) that can be used to make the boat.</li> <li>4. Students work together to design and make their boats. A water tray is available for students to test their model boats on.</li> <li>5. The teacher calls a class meeting approximately ½ an hour into the production process to introduce a further success criterion – that the boat has to carry a cargo of 4 marbles.</li> <li>6. Students are told that they have 20 minutes left to complete their boats.</li> <li>7. The boats are tested in the water tray and assessed against the success criteria. Awards are given out for best use of resources, best technical expertise, best visual effects, best group work, most stable boat, etc.</li> <li>8. The teacher shows students the list of enterprising attributes required for this lesson (see box below) and students name a stage in the lesson when they used (or could have used) each one. The students rank their application of the enterprising attributes using a continuum.</li> </ol>																
<p style="text-align: center;"><b>LEARNING OUTCOME/S</b></p> <p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• Apply a range of Enterprising Attributes as they participate in a team to construct a boat that floats out of recycled materials.</li> <li>• Reflect on their use of Enterprising Attributes by giving examples of their own enterprising behaviour and identifying areas for improvement.</li> </ul>		<p><b>Reflective questions/discussion</b></p> <ol style="list-style-type: none"> <li>1. Which enterprising attributes did we use well? Give examples.</li> <li>2. Which enterprising attributes do we need to work on? What could we do to make improvements in these areas?</li> <li>3. Which teams worked well together? What did they do to make their group work a success?</li> <li>4. If we had to do this challenge all over again what would we do differently?</li> </ol>	<p style="text-align: center;"><b>VOCABULARY FOR THE LANGUAGE WHEEL</b></p> <table border="0"> <tr> <td>Change</td> <td>Contributing</td> </tr> <tr> <td>Cooperation</td> <td>Creative ideas</td> </tr> <tr> <td>Flexible</td> <td>Improve</td> </tr> <tr> <td>Modify</td> <td>Participating</td> </tr> <tr> <td>Plan</td> <td>Resources</td> </tr> <tr> <td>Roles</td> <td>Team work</td> </tr> <tr> <td>Test</td> <td>Time management</td> </tr> </table>	Change	Contributing	Cooperation	Creative ideas	Flexible	Improve	Modify	Participating	Plan	Resources	Roles	Team work	Test	Time management
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<p style="text-align: center;"><b>RESOURCES</b></p> <table border="0"> <tr> <td>Ice-cream containers</td> <td>Yoghurt pottles</td> <td>Straws</td> </tr> <tr> <td>Straws</td> <td>Cellophane</td> <td>Paper</td> </tr> <tr> <td>Cardboard</td> <td>Tin foil</td> <td>Marbles</td> </tr> <tr> <td>Wooden skewers</td> <td>Blu tac</td> <td>Water tray</td> </tr> <tr> <td>Plastic bottles</td> <td>Polystyrene</td> <td></td> </tr> </table>	Ice-cream containers	Yoghurt pottles	Straws	Straws	Cellophane	Paper	Cardboard	Tin foil	Marbles	Wooden skewers	Blu tac	Water tray	Plastic bottles	Polystyrene		<p><b>Key competencies and enterprising attributes to consider:</b></p> <p><b>Thinking</b> Generating and using creative ideas and processes Identifying, solving and preventing problems Monitoring and evaluating</p> <p><b>Relating to Others</b> Working with others in teams</p> <p><b>Participating and Contributing</b> Planning and organising Being flexible and dealing with change Identifying, recruiting and managing resources</p>	<p>NB: The context for these words is Education for Enterprise's set of enterprising attributes and this activity.</p>
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