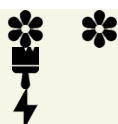


# Lesson Plan

Nature  
Art  
Science



## Summary

## Curriculum alignments

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|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Craft name                                                 | Tree of Light                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Subjects                                                   | Art; media arts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Year group                                                 | Year 5+ UK, Grades 3+ US                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Key words                                                  | Parallel circuits, printing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| English<br>National<br>Curriculum<br>Key Stages 2<br>and 3 | <p><b>Nature (geography)</b></p> <ul style="list-style-type: none"> <li>• Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies</li> </ul> <p><b>Art</b></p> <ul style="list-style-type: none"> <li>• To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials</li> <li>• To increase their proficiency in the handling of different materials</li> <li>• To use a range of techniques and media, including painting</li> <li>• Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions</li> </ul> <p><b>STEM</b></p> <ul style="list-style-type: none"> <li>• To construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</li> <li>• To identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery</li> </ul> |
| US Curriculum<br>Grades 3-8                                | <p><b>Nature</b></p> <ul style="list-style-type: none"> <li>• Environmental Education, Knowledge of Environmental Processes and Systems [EE4-S2.4-B, EE4-S2.4-C, EE8-S2.4-B]</li> <li>• Environmental Education , Personal and Civic Responsibility [EE4-S4-D]</li> </ul> <p><b>Art</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

|  |                                                                                                                                                                                                                                              |
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|  | <ul style="list-style-type: none"> <li>• Visual arts, Creating: Investigate [VA:Cr2.2.3a, VA:Cr2.2.4a, VA:Cr2.2.5a, VA:Cr2.2.6a]</li> </ul> <b>STEM</b> <ul style="list-style-type: none"> <li>• Science (NGSS), Energy [4-PS3-2]</li> </ul> |
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## You will need

| <a href="#">Tree of light craft storyboard</a>                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part 1                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• Paper, or glass, container to make the plant pot</li> <li>• Double-sided craft tape</li> <li>• Prints/decorative paper</li> <li>• Branches and other found materials from your local area</li> </ul>                                                       |
| Part 2                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• Watercolour paper 200GSM</li> <li>• Brayer roller</li> <li>• <a href="#">Gel plate</a></li> <li>• Acrylic paint</li> <li>• Leaves of different shapes, textures and sizes locally sourced</li> </ul>                                                       |
| Part 3                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• <a href="#">Chibitronics circuit template</a></li> <li>• Paper clips</li> <li>• Punch hole tool and thread</li> <li>• Coin battery (3V CR2016)</li> <li>• <a href="#">Conductive fabric tape</a>*</li> <li>• <a href="#">LED light stickers</a></li> </ul> |

## Learning objectives

|                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Students will explore texture and pattern by creating leaf prints with paint, demonstrating an understanding of natural forms and basic printmaking techniques.                                                       |
| Students will design, create, and decorate a functional plant pot, developing their skills in 3D construction and surface decoration while exploring form, colour, and personal expression.                           |
| Students will construct a simple paper circuit using a battery, conductive tape, and one LED light, demonstrating an understanding of basic electrical circuits and how they can be integrated into creative designs. |

\* For paper circuit materials, we use [chibitronics](#)

## Lesson outline

| Duration | Guide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 hour   | <p><b>Part 1: Choosing and decorating a plant pot</b></p> <p>Students will work with a variety of craft and nature materials to construct and materialise a plant pot. For the nature materials, you will guide a walk in the school grounds or another chosen spot to find branches and other nature objects. <i>Optionally, students can be asked to bring these materials from home.</i></p> <p><b>Discussion prompts</b></p> <ul style="list-style-type: none"> <li>✿ What nature materials do you notice? Can you identify where they come from?</li> <li>🔨 What found materials can be used to create the plant pot? What qualities do you like?</li> <li>🔨 What techniques can you use to ensure your pot is sturdy?</li> </ul> |
| 1.5 hour | <p><b>Part 2: Creating new leaves</b></p> <p>In a guided walk, students will look for leaves in their surroundings choosing different sizes, shapes and textures. They will use gel printing or stamping techniques to experiment, print and cut out leaves.</p> <p><b>Discussion prompts</b></p> <ul style="list-style-type: none"> <li>✿ What types of leaves do you notice? Are you familiar with these trees/shrubs from your local area?</li> <li>🔨 How does your movement with the paint roller change the aesthetics of your print? Similarly, does the aesthetic change based on the amount of paint used?</li> <li>🔨 What colour combinations did you use and which worked best?</li> </ul>                                   |
| 1 hour   | <p><b>Part 3: Making your circuit</b></p> <p>Using a circuit template, the students will make a simple circuit with one light securing it inside their leaf. They will mount their craft leaves on their plant pot.</p> <p><b>Discussion prompts</b></p> <ul style="list-style-type: none"> <li>⚡ Where does the circuit get its power from? How does the current flow in this circuit? Why does it sometimes flicker?</li> <li>🔨 What strategy can you use to cut your circuit tape to the model and why would you want to do this?</li> <li>🔨 What other materials from your craft process and nature explorations could you add to your piece?</li> </ul>                                                                           |

## Differentiation and extension activities

- ✿ Try scaling the size of the tree. E.g. use a plant pot to make a life size tree.

- 🌿 Try enriching the nature materials you include in your plant pot. E.g. look for interesting branches, cones and other found materials in your local environment.
- 🌿 Leaves are perfect for extending your printing techniques. Have a look at our [youtube channel](#) for new ideas!