



Teach Outside the Box: STEM

Area of a Leaf



Introduction

In the story of Green Willow, the leaves of the willow tree rustled in the wind. They were long and slender which helped Tomotada identify the willow. This investigation will help you identify the trees in your school grounds, by looking closely at leaves.

You will need:

- squared paper;
- scissors.

Key Questions

- Who found the smallest leaf? Who found the largest?
- What was the most common leaf shape?
- Which tree has the largest leaves? Was it out in the open or in a woodland?

What to do:

1. Make a collection of leaves from different trees in your school grounds or an area you visit. Use scissors to cut carefully, without causing damage to the tree.
2. The leaf needs to be flat on a sheet of squared paper. Work with a partner to hold it still while you draw around the outline as carefully as you can.
3. Carefully, count the whole squares and keep a record.
4. Next, estimate the number of partially covered squares. If it is half covered or more, count it as one. (If it is less than half covered, do not count it.)
5. Add together the whole and partial squares to provide you with area of your leaf.

Ways to Support

Predict which leaf will have the largest area. Record and investigate in pairs.

Ways to Extend

Add the details of the leaf area to a tree log to help you identify trees in your school grounds. Compare the area of leaves in spring, summer and autumn. Is there a difference? Why?

Curriculum Links

Maths: Estimate areas of irregular shapes.