

# MATHS IN THE ENVIRONMENT

*Scientists use maths to understand the ecology of the local environment. Below is an example from a real scientific study.*

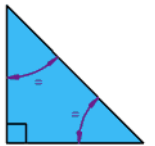
**AREA:** *Squirrel Gliders and possums are more likely to be found on sites with more than 18 trees with hollows per half hectare (about the size of a football field) of woodland or forest.*

*Sample an area that is 30m x 30m. If we multiply this area by 5 it equals approx. half a hectare.*

1. **How many hollows would be appropriate for this sample area?** \_\_\_\_\_
2. **Number of trees with hollows** \_\_\_\_\_

**HEIGHT:** *Squirrel Gliders need tall trees to glide from.*

*A Right Isosceles Triangle has a right angle (90°), two equal angles and two equal sides. If you angle your **clino** at (45°) and walk until it points to the top of a tree, the distance between you and the tree will be the same as the height of the tree.*



1. Record the following features of your chosen tree and add the results from other groups.

Type of Tree	Bark Type	Height	Circumference	Number of Hollows

2. *Use the results above to graph the relationship between tree height and circumference.*

## **PERCENTAGE**

Squirrel Gliders prefer a more open canopy where it is easier for gliding.

1. Estimate the percentage cover of the canopy \_\_\_\_\_
2. Use the Specht chart and the height of the tallest tree to classify the forest type.