FOREST EDUCATION NETWORK
ENGLAND

How Old Is My Tree?

Age: 7 - 11 year olds   🕐 **Minimum time needed:** 1 hour

Curriculum links:

Maths

- Measure and compare lengths (m/cm/mm). Measure the perimeter of simple 2D shapes.
- Present data using bar charts, pictograms, and tables.
- Convert between different units of measure.
- Estimate.

Practice measuring and estimating to work out the ages of different trees.

🍃 Get Ready

- Clipboard, paper and pencils
- Long tape measures
- Calculators

🍃 Get Set

💬 **Discuss:**

The differences between measuring and estimating and why might it be necessary to estimate something?

Tell the group:

- ….that we can find out how old some trees are using both measuring and estimating.
- ….on average, trees get 2 cm wider each year. We can use this to estimate the age of a tree if we measure its circumference.

- Working in groups create tables to record the data they will collect when in the forest.
- For five trees they will measure the tree's circumference in metres (m), and then convert that to centimetres (cm).

Tree	Guess at tree age	Girth (m)	Girth (cm)	Age (girth/2.5)
1				
2				
3				
4				
5				

Go

- In groups, choose five trees and try to estimate how old they are just by looking.
- For each tree, measure the tree girth (circumference) 1.5 m above the ground to avoid the wider roots at the base of the tree.
- Add the data to the tables.
- Calculate the ages of the trees using the following:
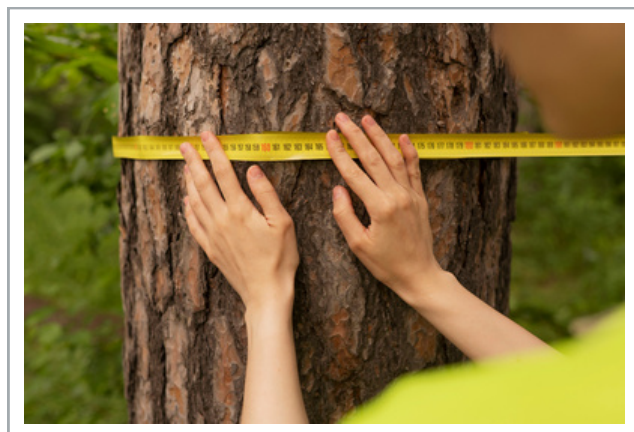
$$\text{Age} = \frac{\text{Tree girth (cm)}}{2}$$

Discuss:
Did you estimate the age of any of your trees correctly? Which is the oldest/youngest tree that you found?

Go Beyond

Create bar charts to show the range of the calculated tree ages.