Water Tank Calculator
Student Worksheet

The water tank calculator is a simple way to figure out the most suitable tank size for collecting rainwater off your roof. The process takes into account the area of your roof and the amount of average rainfall in your region to determine the amount of water that you could harvest. The calculation has been broken down into three simple steps:

STEP 1: Calculate the area of your roof
STEP 2: Calculate your roof runoff
STEP 3: Choose the appropriate tank size

STEP 1: CALCULATE THE AREA OF YOUR ROOF

Find a small rectangular roof in your school and use a measuring tape, or you can do this from an aerial map of the school at daftlogic.com, to measure the length and width of the building. The area of your roof can then be calculated by multiplying the length by the width of the roof.

E.g. The area of the roof in figure 1 has been calculated using the following equation:
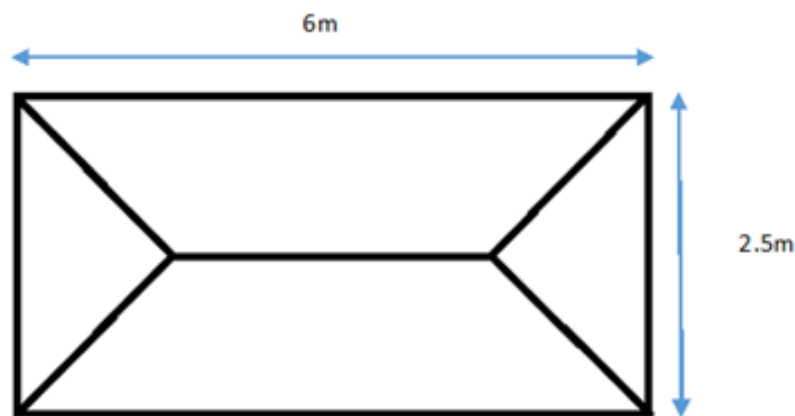6m (L) x 2.5m (W) = **15m² (Area)**

Figure 1: Example roof measurements

Activity

Fill in the blanks below to determine your roof size:

_____ m (L) x _____ m (W) = _____ m² (Area)

As a general rule, 1 millimetre of rain on 1m² will deliver 1 litre of water into your tank. This means that we will need to multiply the area of your roof by the amount of average annual rainfall that your region receives in order to calculate our potential runoff. To determine the average annual rainfall for your region, refer to figure 2.

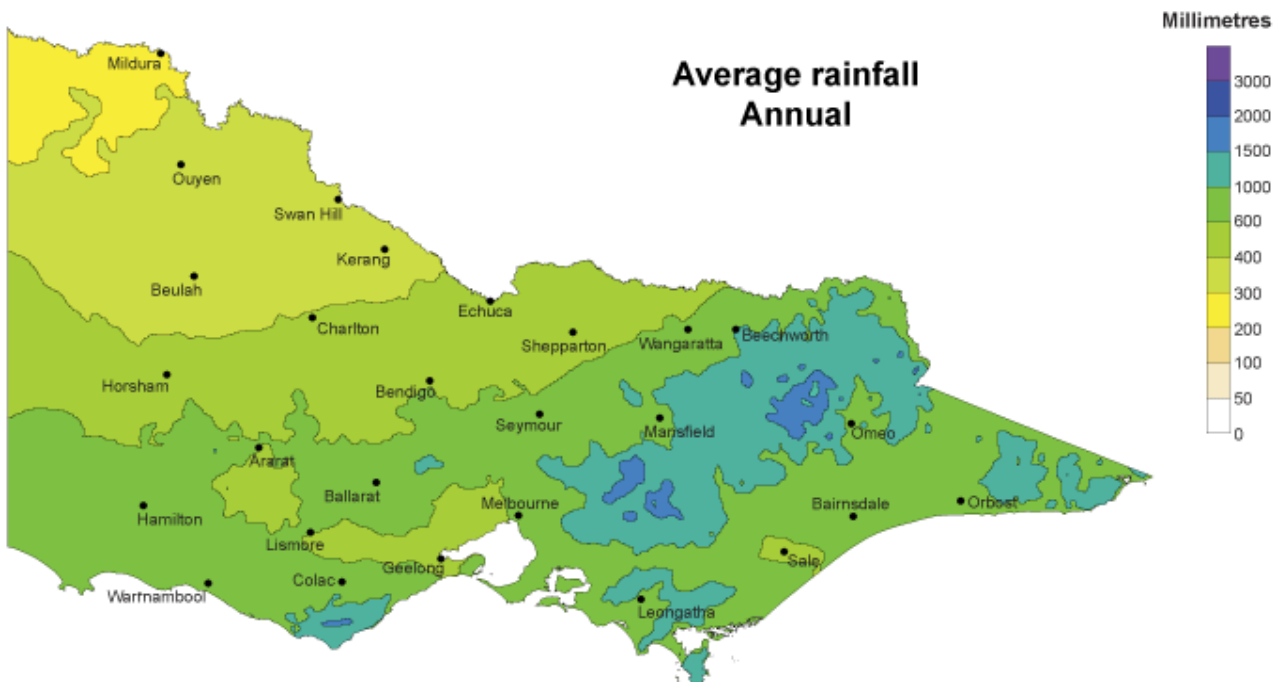E.g. The town of Seymour in Victoria receives approximately 600mm of annual rainfall.

Activity

Fill in the blank spaces below to determine your potential roof runoff:

Roof area (m2):_____ (A)

Average annual rainfall (mm):_____ (B)

(A)_____ x (B)_____ = _____ (Annual runoff in litres)

Average rainfall
Annual

Consider the amount of runoff that you will receive from your roof and determine the appropriate tank size for your roof . Select from the diagram below for possible tank sizes.

Average annual runoff: _____ L

Appropriate water tank size: _____ L
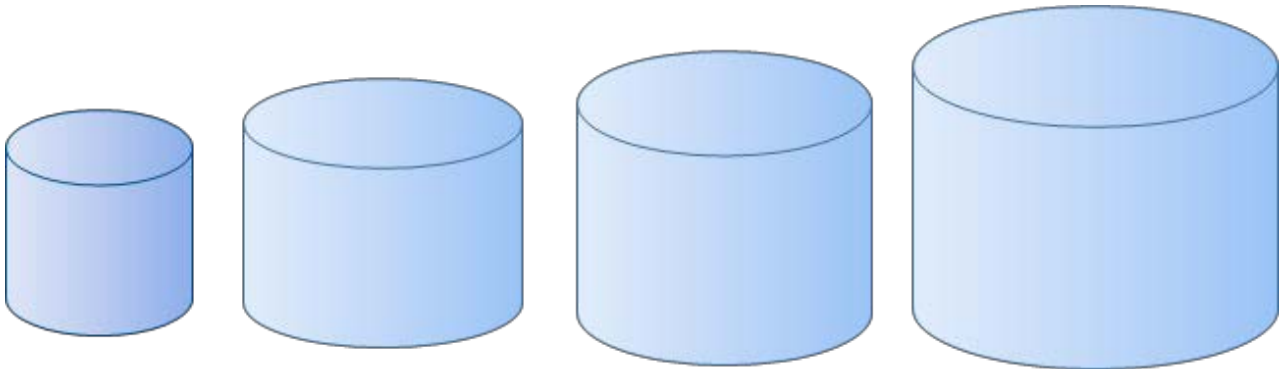
SMALL	MEDIUM	LARGE	EXTRA LARGE
Less than 5,000L	Between 5,000L – 10,000L	10,000L – 20,000L	Greater than 20,000L

ACCESS THIS ACTIVITY

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https://sustainability.ceres.org.au/education-resources/curriculum-activities/