



School Gardening  
Resources

PRIMARY LEVEL

**BORD BIA**  
IRISH FOOD BOARD

# Water Conservation In The School Garden





<b>Time of Year</b>	September to June
<b>Aim</b>	To learn how to use water wisely in the garden, how to harvest it in the school grounds and how to measure the amount of rainfall the grounds receive.
<b>Resources Needed</b>	Water butts with lids, taps, connectors and down pipe diverters, length of hosepipe, hand tools such as hacksaw, spirit level, measuring tape, watering cans, rain gauge, soil moisture meter, damp newspaper and cardboard.
<b>Cross Curriculum Relevance</b>	<b>SESE:</b> Living things, environmental awareness & care, recording, observing <b>Maths:</b> Measuring, counting, estimating, recording, active learning <b>Informal Curriculum:</b> Discover Primary Science, Green Schools



## Water Conservation:

- ★ Less than 1% of the world's water is available for use by living things. That means we must use it wisely and not waste it.
- ★ This clean water is under threat all over the planet because we are gradually using it up and replacing it with polluted water.
- ★ Humans and many creatures can only survive a few days without water so it's important that there is plenty of clean, fresh water available for consumption.
- ★ The population of the earth is increasing. That means that more and more fresh water will be needed for this increase and for the plants and animals that they use for food.
- ★ Harvesting rainwater for use in the garden increases the amount of fresh water available through our taps. Plants prefer rainwater over tap water because the latter contains chemicals to kill bacteria and make it safer for human consumption. Humans filter out these chemicals through their kidneys but of course plants can't do this.
- ★ Mulching plants such as young trees and shrubs with wet newspapers or cardboard and covering these materials with compost reduces water loss.



## Process:

### Process of harvesting rainwater from a downpipe(s):

**1** Follow the instructions on the leaflet supplied. The only tools required to divert water from a downpipe are a hacksaw, tape measure, spirit level, connector and divertor. It's a good idea to install several butts linked with hosepipe to stretch from the inside base of one to the inside base of another. A couple of butts linked makes the most use of the rainfall.

**2** To connect two butts, one needs to cut a length of hosepipe to reach from the base of one butt to the base of the other. Drill the lids and thread the hose through making sure there is an equal length of hosepipe in each butt. Fill one butt 1/3 with water and make sure the hosepipe is at the bottom by tying the end to a brick or stone. Lift the exposed end of the hose and suck until water comes through. Drop this to the bottom of the second butt and water will flow until it's level in both butts.

### Health and Safety

- ★ It is good practice to keep the lids fitted on the water butts for children's safety and to keep insects and debris out.
- ★ Make sure the butt(s) are on a level surface such as paving slabs. This is especially important if water must be siphoned from one butt to the next.
- ★ Also make sure that the water butts are securely attached to the wall. Empty water butts are light enough to be pulled over easily.



### Watering Plants:

- ★ Plants in pots are especially at risk from lack of water. If the top 2.5 cm of potting mixture is dry this is a good indicator that the plant needs water. Water the mixture, not the plant until it starts seeping out under the pot. A soil moisture meter is a useful tool to have for children to assess if the plant needs watering.
- ★ Water plants in the morning. If they are watered in the middle of a warm day most of the water will evaporate.
- ★ Ensure that there is a plan in place for watering plants over holiday periods if it's necessary to do so.



### Rain Gauge:

This is used for measuring daily rainfall in the school grounds. Place gauges in different locations to find out the driest and wettest areas. Record results on charts.