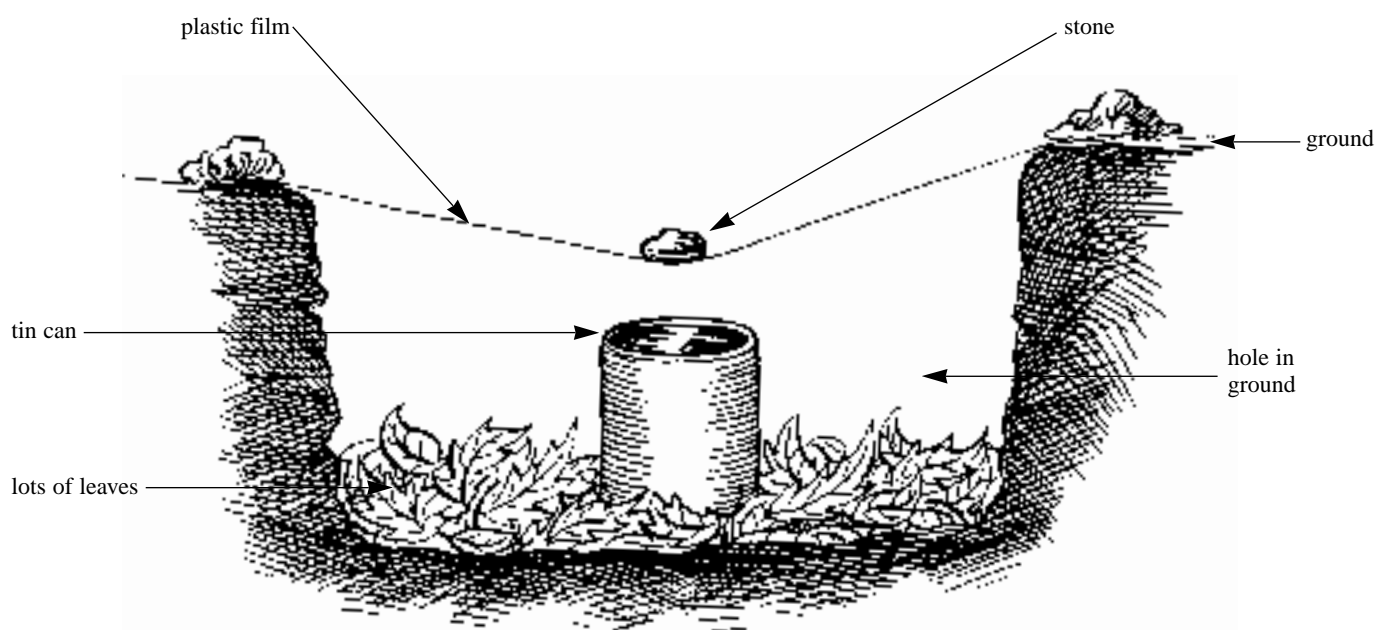


WATER CYCLE ACTIVITY EIGHT

Plants store water which is also part of the natural water cycle. Have you ever seen a mist rising from tree tops in the Waitakere Ranges? When plants breathe, they return water to the atmosphere, this is called 'transpiration'. This experiment lets you see how water is stored in plants. You will need lots of fresh leaves (a mixture), an empty tin can, a spade, permission to dig a small hole in the school grounds and enough plastic film to cover this hole.

1. Set up the experiment so that it looks like the diagram below. You should do this in the afternoon, then leave it set up overnight. Use dirt from the hole to weigh down edges of the plastic film so that it doesn't fall in or blow away. The stone needs to be just heavy enough to make the clear plastic slope downwards so that it is directly above the can opening.



2. Next morning, remove the plastic film and check to see how much water has collected in the tin can. Find a way to report your findings from this experiment.
3. Explain to someone how the natural water cycle works by using the results of this experiment as an example. Include the words 'evaporation', 'condensation', 'precipitation' and 'transpiration' in your explanation.
4. Do more plants cause more transpiration? Find a way to change this experiment so that you can answer this question. Report your results.