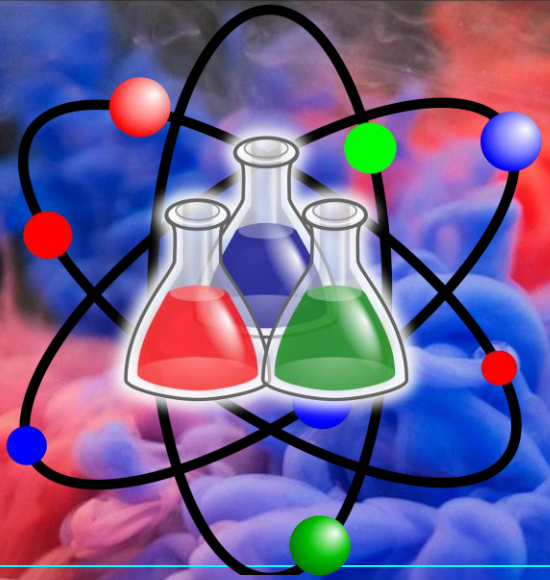


Solar stills science project by Ali and Aoife
5th Class

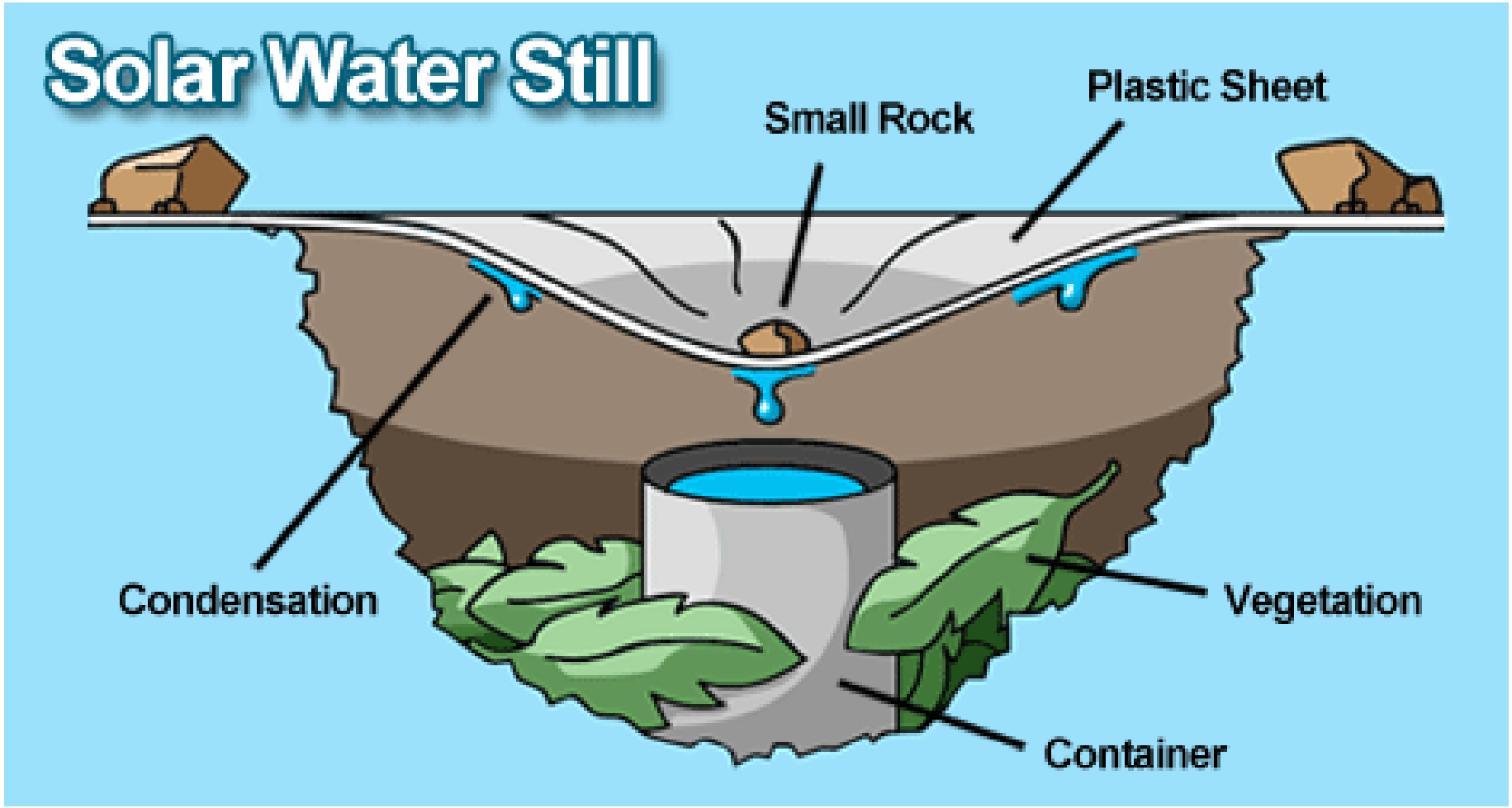
Science experiment

Introduction

Solar stills use the heat of the sun to distil-clean and purify -water that is dirty or salty.

In Ireland water is cleaned using water filters

In hot countries, water stills may be used to distil dirty water.


Solar Water Still
Small Rock
Plastic Sheet
Condensation
Vegetation
Container

Facts about solar stills?

How much water can solar stills produce:

- solar stills produce about three times as much make-up water .
- if the still produced three gallons of water...then nine gallons of make-up water should be added of which six gallons leaves the still as excess.

How does a solar still work?

In a solar still, impure water is contained (collected) outside the collector, where it is evaporated by sunlight shining through clear plastic (cling film) or glass.

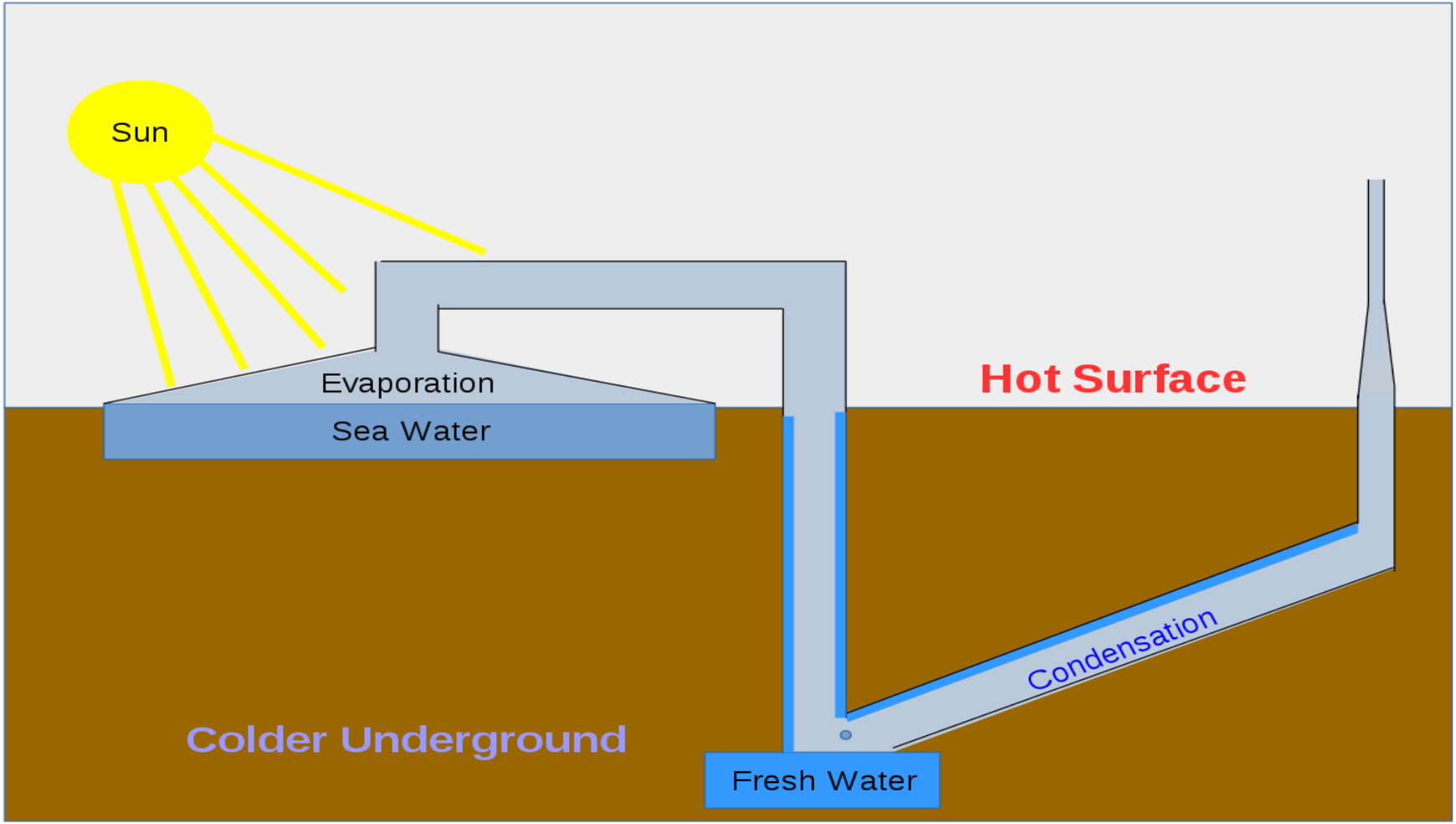
You could say that the whole world is a solar still.

The Experiment

1. Put water into a mixing bowl until it is about 3 cm deep.
2. Stir some soil into the water in the mixing bowl.
3. Add some food colouring to help us see the water easier.
4. Place an empty glass into the dirty water. The dirty water should come about halfway up the glass
5. Cover the mixing bowl with cling film. Very tightly!!!
6. Place a small rock, on the cling film, directly over the glass.
7. Place the mixing bowl in the sun for 3 hours.

Predictions...

What do you think will happen and why?


Sun
Evaporation
Sea Water
Hot Surface
Condensation
Colder Underground
Fresh Water

The science...

The heat from the sun causes the dirty water to **evaporate (Turn into a gas)**

The gas then cools and **condenses into a clean liquid** in the glass