



## WALKING WATER

### OVERVIEW

In this activity, campers will learn about the properties of water that allow it to seemingly “defy” gravity (capillary action) and observe the relationships between different colours. Campers will be able to make their own rainbow of walking water.

### TOPIC AREA(S)

Chemistry

### GRADE LEVEL

Grade 1 and 2

### QUESTIONS PRIOR TO THE LESSON/GETTING EXCITED

- Who here has ever spilt some water and had to clean it up?
- What are some things we usually use to clean up spills?
- What happens when paper towel is placed in some spilled water?
- What happens when you mix different colours?
- Mix red and yellow? Blue and yellow? Red and blue?

### BACKGROUND INFORMATION FOR INSTRUCTORS (INCLUDE QUESTIONS W/ ANSWERS)

We see water every day! Water exists in our environment in many states: liquid, solid and gas. What is an example of solid water? Liquid water? And gaseous water? (ANS ice, glass of water, water vapour in the air). Water, although very common is actually quite unique in its properties which allows for some pretty interesting things.

Life on our planet is dependent on water! When we get thirsty, that is our body telling us that we need more water. We need water every day to stay hydrated and so do a lot of other living things on Earth. All other plants and animals need to “drink” water in order to survive just like us.

One of the special properties of water is called capillary action. This explains why water can go from the very bottom of a plant (at its roots) to its very highest leaves. The molecules of water like to stick to other things more than they like to stick to each other.

Who has a favourite colour? Like we talked about earlier, when we mix colours we get new ones! There are three colours called primary colours and these are used to make every other colour that we know. The primary colours are red, yellow and blue. These colours are mixed with other things to make colours like purple, pink, green etc.



**RELEVANCE TO THE CURRICULUM**

Grade 1 and 2	Grade 3 and 4	Grade 5 and 6	Grade 7 and 8
Needs & Characteristics of Living Things Growth and Changes in Animals <ul style="list-style-type: none"> <li>▪ Materials, Objects and Everyday Structures</li> <li>▪ Movement</li> <li>▪ Energy in Our Lives</li> <li>▪ Properties of Liquids and Solids</li> <li>▪ Daily and Seasonal Changes</li> <li>▪ Air and Water in the Environment</li> </ul>	Growth and Changes in Plants Habitats and Communities Strong and Stable Structures Pulleys and Gears <ul style="list-style-type: none"> <li>▪ Forces Causing Movement</li> </ul> Light and Sound Soils in the Environment Rocks and Minerals	Human Organ Systems Biodiversity Forces Acting on Structures and Mechanisms Flight Properties of and Changes in Matter Electricity and Electrical Devices Conservation of Energy and Resources Space	Interactions in the Environment Cells Form and Function Systems in Action Pure Substances and Mixtures Fluids Heat in the Environment Water Systems

**MATERIALS (SPECIFY WHETHER PER CAMPER, GROUP OR CLASS)**

Transparent jars or cups (6 per camper)  
 Paper towels (6 strips)  
 Liquid water colour or food colouring (red, blue and yellow)- a few drops per camper  
 Water (enough to fill three jars/cups)

**SAFETY CONSIDERATIONS**

-water can be given to campers in a large jug or container to avoid walking long distances with the water.  
 -if glass jars are used, ensure campers are cautious and are not carrying them around.

**PROCEDURE**



1. First, get all supplies ready and distribute to all the campers.
2. Next, three of the jars can be filled to  $\frac{3}{4}$  full with water, leaving the remaining three empty.
3. A few drops of food colouring can be added to the water (red, blue and yellow will each have their own jar).
4. All the jars can now be placed in a circle alternating between jars with coloured water and empty ones.
5. Fold each piece of paper towel in half and then in half again to form a long strip and dip them into the jars connecting water jars with empty ones.
6. Watch the water move along the paper towels to create a rainbow! (the longer you leave it the better).

#### REFERENCES

<https://www.messylittlemonster.com/2018/06/rainbow-walking-water-science-experiment.html>