

**Grade Level:** 2 - 3

**Curriculum:** Explorations, Science, ADST

**Title of Lesson:** The Water Cycle

**Learning Goals/Objectives:**

- Water is essential to all living things, and it cycles through the environment
- Materials can be changed through physical and chemical processes
- Technologies are tools that extend human capabilities
- Designs grow out of natural curiosity

**Materials Needed:**

- 2-litre plastic bottle, empty and clean
- Utility knife
- Dirty water (make your own with stuff like coffee grounds, dirt, crunched-up old leaves, cooking oil, or tiny pieces of foam)
- Measuring cup
- Spoon
- Stopwatch or clock with a second hand
- Pencil and paper
- As many of the following filter materials as you can get: activated charcoal (available in the fish section at a pet store), gravel, sand (coarse and / or fine), cotton balls
- Coffee filter (A bandanna, old sock, napkin, or paper towel works too!)

**Activity Instructions: (Step by Step)**

- We know that water is very important because of all of the things we use it for
  - Drinking cooking, bathing, cleaning, washing, watering plants
  - Where does water come from? And, what is it made of?
- Everything is made up of Matter. Matter is everything we touch, hold and interact with.
  - A dog is made of matter, a car is made of matter, trees are made of matter, you are made of matter and water is made of matter!
  - If we examine matter even more closely, we will find that ALL matter is made up of Molecules!
    - Molecules are tiny! We can't see individual molecules with our naked eyes, but we can see what they join together to create!
- Where does it come from?
  - The water we see today is the very same water that has been on the Earth for thousands and thousands of years
    - It moves around the planet in rivers, streams, oceans, in rain and in clouds
    - Watch this video clip for more information about the water cycle:

