

Lesson Two: All Living Things Need Water

3. Our Bodies Need Water

Teachers' Notes: Read *The Story of Drinking Water*, pages 4–5, in a large group or individually. Students can enter their weight into the fluid needs calculator. Their average daily requirement to replace water used throughout the day is $\frac{2}{3}$ ounce per pound they weigh. For example, a 100-pound student needs 75 ounces, or about 9 cups, of water per day. Ask how each student can add this water to their diet. What types of activities do they participate in each week that may increase this need?

Objective: Students will learn how water is a major component of all living things.

Curriculum Area: Science; Math

Taxonomy: Knowledge; Understanding; Analyzing

Science Processes: Reading graphs, maps and tables; Data collecting and measurement

Time Needed: 20 minutes

(*The Story of Drinking Water*, page 4): Without water, the Earth would look like the moon. There wouldn't be any trees ... or animals ... or humans. All life depends on water. Next to the air we breathe, water is our most essential element of life.

- The human body is about 70% water. Every system in our body uses water.
- Water makes up almost 80% of our brain.
- Water makes up 83% of our blood.
- Water makes up nearly 90% of our lungs.
- Water transports body wastes.
- Water lubricates body joints.
- Water keeps body temperature stable (think sweat!).
- Water aids in digestion (think spit!).

Human beings can live several weeks without food but only four to seven days without water, depending on conditions. We must drink six to eight glasses of water each day to replace the water we lose from normal activity. Some water loss is visible through sweat and excretion.

A person needs to drink enough water each day to replace the water lost through everyday activities and climate conditions. Babies' and kids' bodies have a larger percentage of water than adults so they need to drink more water proportionately to be hydrated.

Activity Directions: Have students solve the question: To replace what your body uses, exactly how many ounces of water do you need to drink each day?

Solve the Problem: Calculate approximately how much water you need to replace each day by filling in the following numbers:

- What is your weight in pounds? (e.g., 100 lbs)
- Divide by 2 to determine how many ounces you should be drinking: (50 oz.)
- Add 8 ounces if you are active: (58 oz.)
- Add another 8 ounces if you live in a dry climate: (66 oz.)
- Divide by 8 to determine how many cups you need to drink a day: (8.25 cups)



Drinking Water
Week 2012



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