

LESSON: The Importance of Water (US)

LEARNING OBJECTIVES:

- Understand the importance of water for the human body
- Recognize and recall examples of different sources of water for the body
- Understand why different groups of people need different amounts of water
- Recognize situations requiring increased water need
- Understand why we may want to limit our intake of sugar-sweetened beverages

LEVEL:



MATERIALS:

- Activity Sheet: Level 4 - Why Do Our Bodies Need Water?
- Activity Sheet: Level 4 - Track Your Water Intake
- Activity Sheet: Level 4 - Importance of Water Board Game
- PowerPoint: Level 4 - Importance of Water (US)
- Quiz: Level 4 - Importance of Water (US)

LESSON:

Starter: The purpose is to introduce the importance of water for grades 7-8 and to teach students different ways in which they can meet their daily water needs. The lesson is designed to provoke critical thinking about the reasoning behind why we want to make water our drink of choice and why we should try to limit sugar-sweetened beverages.

Section 1: Why is Water Important? What Does it Do for the Body?

*Ask Class: Why do you think water is important? What does it do for our bodies? *listen to response, create list together, recap and compare with the following**

Drinking water is important in order for our bodies to stay hydrated. Water plays a large role in our bodies, as they are made up of about 60-70% water! Our bodies also use water as a tool for many functions. Some of these include:

- Helping with brain, muscle, organ, and joint functions
- Removing toxins and waste from the body
- Controlling body temperature
- Moving nutrients across the body

It is important to get enough water throughout the day because our bodies lose water during many different activities. Replacing the lost water will help to keep you hydrated and to keep all the important body functions listed above running smoothly.

Ask Class: Can you think of some ways in which water may be lost from the body during activities?

listen to response, create list together, recap and compare with the following

Water is lost through waste, sweating, and even breathing! This water loss can be broken down into two types: sensible and insensible loss.

For Example:

- **Sensible** loss includes lost water that you can see, such as waste and sweating.
- **Insensible** loss includes lost water which you cannot see, such as breathing.

Fun Fact: Water is lost through breathing because our bodies have to moisten the air coming into our lungs. This respiratory process lets the moistened air back out into the environment when we breathe out - causing us to lose water during breathing!

Whether you see your body losing water during daily activities or not, it is important to replace lost water in order to keep the important functions in your body running smoothly.

Section 2: Where Does My Water Intake Come From?

The best and easiest way to get lots of water is by drinking it. It is recommended to **make water our drink of choice [1]**. There are also many other ways for your body to get more water! You can get water from other healthy drink choices such as:

- Lower-fat Milk or Plant-Based Milks
- 100% Fruit Juices
- Unsweetened Herbal Teas

You can also help to meet your daily water intake by eating food!

Did you know? About 80% of a person's total water intake comes from beverages, but around **20%** comes from food!

Almost all food has water in it, but water-rich foods have a larger amount of water. By eating foods which have higher water content, your body can absorb the water and use it to perform its daily functions. Most water-rich foods are foods in the **Fruits and Vegetables** food group. This group has a higher level of water content and can help you to meet your daily water needs.

For Example: some water-rich fruits and vegetables include: Tomatoes, peppers, cucumbers, melons, strawberries, oranges, peaches, etc.

Incorporating a mixture of water and water-rich foods into your diet can make for an easy and healthy way to meet your daily water goals!

Section 3: How Much Water Do We Need?

The amount of water someone needs varies depending on the person and the situation that they are in. When your body needs water, there are signals that can indicate to you that you are dehydrated or that you are reaching dehydration (*dehydration* - issues in body functions caused by a lack of water intake).

*Ask Class: How do our bodies tell us that we need to consume more water? *listen to response, create list together, recap and compare with the following**

Answers: A combination of: thirst, dry lips, headaches, dark urine, feeling tired, dizziness, and/or muscle cramps are all some of the signals from your body alerting you that you are reaching dehydration.

If you begin to have any of these symptoms, it is important to increase your water intake. A good range to base your daily water intake for both drinks and food is:

- 1.5-2.2 L/day (6-9 cups/day) for **males and females ages 9-13**

While this is a good range to follow, it is important to remember that these numbers may vary depending on the person or the situation that they are in.

Also, it is important to understand that too much water can be harmful to our bodies. Drinking too much water can lower the *electrolyte* levels in the body (*electrolytes* - important nutrients which help the body perform daily functions). Try to stick to the ranges listed above and listen to the signals from your body to ensure that you are consuming the right amount of water.

Section 4: What Situations Require You to Consume More Water?

*Ask Class: In what situations do you think we would need to consume more water? *listen to response, create list together, recap and compare with the following**

- *In a hot environment* - Higher temperatures can cause your body to sweat more and lose fluids faster.
- *During sickness* - Some fevers and illnesses can cause you to lose fluids. You can try to regulate your body temperature throughout the day by drinking water to replace any of the fluids that you may have lost.
- *During exercise* - Exercise also causes your body to lose a lot of fluids through excessive sweating.
- *In higher altitudes* - Higher altitudes (such as if you were high up on a mountain) have lower levels of oxygen which can cause your body to breathe more rapidly and lose water quicker.

Section 5: Sugar-sweetened Beverages vs. Water

*Ask Class: Are there any other drinks you can think of which also contain water?
*listen to response, create list together, recap and compare with the following**

Answers: Pop, soda, sugar-sweetened fruit beverages, energy drinks, high fat dairy beverages (i.e. milkshakes), and coffee.

These drinks can have high amounts of the ingredients: salt (sodium), added sugars, fat, and caffeine. These drinks can also have a high caloric intake (*high caloric intake - high in calories*). It is best to limit the intake of these drinks and try to choose the healthier options, such as water, most of the time.

Summary: Wrap-up and Take-Home Points

Water is very important for regular body functions and to help prevent us from becoming dehydrated. Remember to drink lots of water throughout the day and to include some water-rich foods into your daily diet.

**Educators Note: For further facilitation, use the assigned quiz to recap the key concepts and test knowledge learned in this lesson.*

Adapted from:

[1] Canada. Health Canada. (2019). Make water your drink of choice. In *Canada's food guide*. Ottawa, Ontario: Health Canada.

[2] Institute of Medicine (U.S.). (2004). *Dietary reference intake: Water, potassium, sodium, chloride, and sulfate*. Washington, D.C: National Academies Press.

REFLECTION NOTES: