



EatHealthy

I eat (and drink) the best foods for my body every day.

24

 ACTIVITY

Healthy Hydration

GRADE LEVEL:
Primary

TIME:
45 minutes

GROUPING STRUCTURE:
**Whole and small group
– learning centers**

SUBJECTS:
**Health
Science
English Language Arts –
listening, speaking, and
writing**

Objective
Students will understand hydration and identify healthy beverage choices.

Materials/Preparation

Classroom Materials

- Markers/crayons
- Masking tape or labels
- Construction paper
- Items for “Estimation Stations”
- Access to water (classroom sink or water fountain)



Before the Activity

- Copy Student Activity Sheet 8 (one copy/student)
- Set up “Estimation Stations”

Opening the Activity

1. Write the words “water”, “food”, and “oxygen” on the board. Read the three words and ask students which of the three is the most important for the human body. Survey the class by show of hands and discuss.

- All three are very important for the human body and we need them all to survive.
- The most important element is oxygen. We can only survive for a few minutes without oxygen.
- The second most important element is water. We can only survive for a few days without water. It is important to replace the water that we lose every day through normal activity, this is called hydration. When our water level drops too low, this is called dehydration.

How to set-up “Estimation Stations”

- Gather: 30 eight-ounce clear plastic cups; one large bowl; bag of sugar, several teaspoons; 10 pitchers or containers to fill with water; globe; paper towels.
- Select four areas with large flat working surfaces for “Estimation Stations”.
- Make “Estimation Station” signs and tape them above each designated station area.
- Using permanent marker or tape/labels, label cups for Station 3.

Station 1 <ul style="list-style-type: none"> • Globe • Six clear cups • Three pitchers filled with water 	Station 2 <ul style="list-style-type: none"> • Six clear cups • Three pitchers filled with water 	Station 3 <ul style="list-style-type: none"> • Six clear cups labeled with beverage names: water; low-fat milk, sports-drink; 100% fruit juice, fruit-flavored drink; soda • Large bowl filled with granulated sugar 	Station 4 <ul style="list-style-type: none"> • Several teaspoon-size measuring spoons • 10 clear cups • Four pitchers filled with water
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- The third most important element is food. We can only survive for a few weeks without food.

2. Tell students that they're going to learn more about why water is important and how to make sure that they are getting enough water every day.



How to make "Estimation Station" Signs: Copy the text for each sign onto a sheet of construction paper.

Estimation Station 1
Where in the World is the Water?
 Question: What (amount) percentage of Earth is water?
 Directions:
 • The clear cup represents all of the space on Earth. (100%).
 • Fill the cup to the level that you feel equals the amount of water that makes up Earth.
 • Record and color your guess on Student Activity Sheet B.
 • Pour the water back into the pitchers.

Estimation Station 2
Water You Doing?
 Question: What amount (percentage) of your body is water?
 Directions:
 • The clear cup represents all of the space in the human body (100%).
 • Fill the cup to the level that you feel equals the amount of water that is inside of the human body.
 • Record and color your guess on Student Activity Sheet B.
 • Pour the water back into the pitchers.

Estimation Station 3
You Are What You Drink!
 Question: What amount (in teaspoons) of sugar is there in common beverages?
 Directions:
 • Fill each labeled cup with as many teaspoons of sugar as you think are in the beverage on the label.
 • Keep track of the number of teaspoons you put in.
 • Record your guess on Student Activity Sheet B.
 • Pour the sugar back into the large bowl.

Estimation Station 4
Hydration Station!
 Question: What amount of water should you drink every day?
 Directions:
 • Pretend that each cup represents a full eight-ounce glass of water.
 • Line up the number of glasses you think you need every day to stay hydrated.
 • Record and color your guess on Student Activity Sheet B.

 **Leading the Activity**

- 3. Give each student a copy of Student Activity Sheet 8:** Students record results as they visit the Estimation Stations.
- 4. Explain what students will be doing at each "Estimation Station".**
 - **Estimation Station 1 – Where in the World is the Water?**
Students fill a clear cup with water to estimate the amount of Earth that is made of water.

- **Estimation Station 2 – Water You Doing?**
Students fill a clear cup with water to estimate the amount of the human body that is made of water.
- **Estimation Station 3 – You Are What You Drink!**
Students fill clear cups with granulated sugar to estimate the amount of sugar in common beverages.
- **Estimation Station 4 – Hydration Station!**
Students fill clear cups with water to estimate the amount of water/fluid they should have every day to stay hydrated.

5. Divide students into four teams and assign each team to a station.
6. Rotate teams through all four stations (with approximately five minutes per station).
7. With students back at their desks, discuss Estimation Stations results.

Estimation Station 1 – Where in the World is the Water?

- About 70% of the Earth is water
 - 97% of the water on earth is in the oceans
 - 3% of the water on earth is freshwater
 - About 2.4% of the water on earth is permanently frozen in glaciers and at the polar ice caps
 - About 1/2 of 1% of the water on earth is groundwater
 - Only about 1/100 of 1% of the water on earth is in the rivers and lakes
 - It takes 39,090 gallons of water to make a new car, including the tires
 - Over 17,000,000 houses use private wells for their drinking water supply
(Source: U.S. Environmental Protection Agency)
- Using a clear cup and water from a pitcher, show students how much of the cup is 70%.
- Ask how many students estimated correctly.

Estimation Station 2 – Water You Doing?

- Water is a clear, colorless, odorless, and tasteless liquid. It is essential for plant and animal life.
- We need water to survive because our bodies are made mostly of water.
- In our vital organs (e.g., heart, lungs, brain) there is a lot of water which allows them to function correctly.
- The water in our body also lubricates our bones and joints so that we can move more easily.
- The amount of water in a human body depends on a person’s age.
 - Babies are about 75% water.
 - An older person is about 50% water.
 - The average adult is about 60% water.



— If you predicted somewhere between 60 and 70%, for yourself you were correct.

- Using a clear cup and water from a pitcher, show students how much of the cup is 60 - 70%.
- Ask how many students estimated correctly.

Estimation Station 3 – You Are What Your Drink!

- Drinking water, water in beverages, and water contained in food all contribute to total water intake, but some are better choices than others.
- Milk, sports-drinks, juice, and even soup broth count toward the amount of water we need every day. Some of these drinks have other healthy benefits as well.
 - Milk is needed for the Dairy Group three times a day. Choose fat-free or low-fat (1%) milk.
 - 100% fruit or vegetable juice also counts toward the total amount of Fruits and Vegetables we need every day. Choose whole or cut-up fruits more often than fruit juice.
- Choose water over sugary drinks.

Average amount of sugar found in a serving of common drinks		
Beverage	Calories	Sugar
Bottled Water	0	0 teaspoons
Sports drinks	110	6 teaspoons
Sweetened Teas	130	7 teaspoons
Lemonade	140	9 teaspoons
Soda	150	10 teaspoons
100% Fruit Juice	100	5 teaspoons
Fruit flavored drinks	70	4 teaspoons
Low-fat Milk	100	2 teaspoons



- Remember, drinks with added sugar contain lots of calories, but just plain water has none.
- Using a teaspoon measure, fill each labeled cup with the correct amount of sugar.
- Ask how many students estimated correctly.

Estimation Station 4 – Hydration Station!

- The amount of water we need to drink every day depends on age, amount of physical activity, outside temperature, and health.
 - The recommendation for a 4- to 8-year-old is five servings of water every day.
 - One serving of water is an 8-ounce glass.
 - Most adults need six – eight servings of water every day.
- We lose water every day by sweating, breathing, and going to the restroom. We replace this water by eating and drinking.
- Try to drink more water when you are active or when you are hot.
 - Our body regulates its temperature through the release of water. When we play sports or participate in moderate or vigorous physical activity we sweat, which is our body’s way to lower our body temperature.
 - Drink water before, during, and after being physically active.
- When you feel thirsty that is one of your body’s signals that you need more water.
- Try to drink the recommended amount of water throughout the day, even if you are not very thirsty.
- Signs of dehydration:
 - A feeling of thirst
 - Tiredness, headache, lack of concentration
 - A reduction in muscle tone
- Using clear cups and water from a pitcher, show students how many cups of water they need every day.
- Ask how many students estimated correctly.



Closing the Activity

8. Ask students to think about the number of servings they had of water yesterday.
9. Take a poll: How many students had enough water and how many did not? What are some ways to make sure you are getting enough water every day?

Modifications

Adjust the suggested time for this activity by spreading it over a five-day period. Take about 10 minutes each day. Introduce the “Estimation Stations” on day one and have students complete one station per day. Share results on the final day. For younger students, adapt this activity by modeling the “Estimation Station” activities as teacher demonstrations. Students can watch you and estimations can be made as a whole-group.

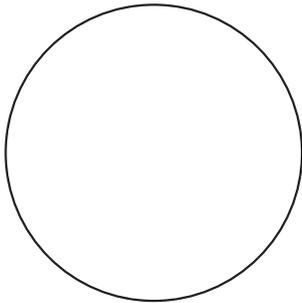


Healthy Hydration

Estimation Station 1

What percentage of Earth is made up of water?

%



Color the circle blue to show the amount of the Earth that you think is made of water.

Estimation Station 2

What percentage of your body is made up of water?

%

Color the body blue to show the amount that you think is made of water.



Estimation Station 3

How much sugar do you think is in these drinks?

Water	%
Spots Drink	%
Low-fat Milk	%
100% Fruit Juice	%
Soda	%
Fruit-flavored drink	%

Estimation Station 4

How many eight-ounce glasses of water should you drink every day?

Color the number of glasses blue.

