

#### BACKGROUND

Water is an essential macronutrient for all living things. Many children do not drink adequate amounts of water, which can lead to fatigue, hunger, poor concentration, dental caries and other problems. Consumption of soda and sugarsweetened beverages instead of water can promote obesity.

#### **OBJECTIVES**

Youth will

- 1. Learn the importance of water in good health.
- 2. Familiarize themselves with the sources of water in their school.
- Discover sources of water in the fruits and vegetables they eat.

#### STRATEGIES

- 1. Knowledge of water
- 2. Active learning
- 3. Awareness of water options

#### TIME NEEDED

60 minutes Water Relay (25) Yo Ho H<sub>2</sub>O (25) Water Content (10)

#### GETTING READY

- 1. Stop Watch
- 2. Cones
- 3. Scooters
- 4. Poster board, parchment, or paper
- bags5. Crayons & Markers
- 6. Drops and titles on
- sticker paper
- 7. Scissors Various fruits and vegetables
- 8. Scale
- 9. Pictures of the process
- 10. Chart

# HOP'N Club Module 13: Wonderful Water

1. <u>Water Relay:</u> The students will learn the importance of water by learning first hand through a relay activity how water helps in several body functions.

3. <u>Water Treasure Maps</u>: What and where are the sources of water in the school building? The students will create treasure maps hi-lighting the places water can be found in their school. Their posters will be displayed in their school.

4. <u>Water Content of Fruits & Vegetables</u>: The students will discover sources of water in the fruits and vegetables they eat by weighing foods that are with and without their water.

5. Wrap Up: Stress the importance of drinking water.

#### Fun on Your Own

The students will work on word scramble sheet to learn more about water.

# **FREQUENTLY ASKED QUESTIONS**

What if I don't like drinking water? There are many ways that you can make water more palatable or appealing. Try a slice of lemon or orange with your water, add ice, or use a fancy glass and crazy straw to drink it. Carrying your own personal water bottle is one way to get in the habit of having water always available to drink.

#### Module 13: Wonderful Water Activity 1: Water Relay

#### **Objective**:

The students will learn the importance of water in good health.

#### Materials:

Stop Watch Cones Scooters

#### Time:

25 minutes

#### **Procedure:**

The instructor will put the students in groups of 3 or 4. The instructor will have one student sit down behind the "line"; the other students will be challenged to get the sitting student across a line on the other side of the gym. The instructor will inform the students that any group where the "sitter" does anything but sit criss-cross with their arms criss-crossed across their chest will be disqualified; also the other students can only touch the "sitter" back and shoulders and no pulling my occur. When the students cross the line a new "sitter" will be chosen. After the students have played the game this way for a couple minutes, a scooter will be given to each group. The students will continue to play the game with scooters. The game will end when all the students have had a chance to be sitters. The instructor will then lead a group discussion about water using the scooters as a metaphor for water keeping the body lubricated and "making movement easier", and using the following talking points (from the script):

- A) Water is the main ingredient of the fluids in your body systems. Fluids travel through your body, carrying nutrients and waste to and from all your cells and organs. Your heart, your eyes, your intestines, and even your big toe need water-based fluids to survive.
- B) If you've ever heard a squeaky door or wheel, you know the sound of something that needs to be lubricated (say: loo-bruh-kayt-ed). Lubricating means making it easier for something to move by keeping the parts from rubbing together. In the case of a squeaky object, people usually put a little oil on the rubbing parts so they move more easily. But in the case of your body: Water does the lubricating!
- C) Water Makes Things Move. As you digest food, the food moves through your intestines. At the end of the trip, the stuff your body doesn't need gets ready to leave your body as waste, which is called a bowel movement. And if you guessed that water is the ingredient that moves everything along, you're right! Water helps your intestines do their job more efficiently by keeping things moist.
- D) Water Keeps Things Cool. People's bodies like to be at about 98.6 degrees Fahrenheit. But if you're running around or doing physical activity, you can feel pretty hot. Sometimes you don't even need to be moving - if the weather's warm enough, you can feel hot just sitting still. That's where water comes in, by cooling you down with sweat. When your body generates heat, water comes up through

your skin as sweat, and it evaporates into the air. As the sweat evaporates, it cools down your skin, which cools down your blood. When your blood is cooler, your insides become cooler, and your whole body cools down. It's like your body's own personal air conditioner!

E) OK, last one here. When you're doing physical activity, don't wait until you're thirsty to drink up. Did you ever get a very dry mouth and suddenly feel very thirsty? That's because your body already needed water and was trying to tell you by keeping water from going to the salivary glands (these glands make saliva, or spit, which is made from water, remember?). So your mouth felt all dried out, and you had a drink. But when it's hot or you're moving a lot, it's much better for you to drink even when you're not thirsty. You'll feel better and have more energy.

#### Follow-up/ Assessment:

The following activities in Modules 13 & 14 will build on this information.

#### **Modifications**:

### Module 13: Wonderful Water Activity 2: Yo Ho H<sub>2</sub>O

#### **Objective**:

The students will familiarize themselves with the sources of water in their school.

#### Materials:

Poster board, parchment, or paper bags Crayons & Markers Drops and titles on sticker paper Scissors

#### Time:

25 minutes

#### **Procedure:**

The instructor will ask the students to think of sources of water in their school. The instructor will explain that based on the information the students just learned about water, that water is a treasure. The students will have various art supplies to create a treasure map to sources of water in their school.

#### Follow-up/ Assessment:

The posters will be hung up around their schools.

#### **Modifications**:

Could have a map of the school (like the one used for drills) available to the students. The students may draw a portion of their school.

### Module 13: Wonderful Water Activity 3: Content of Water in Fruit & Vegetables

#### **Objective**:

The students will discover sources of water in the fruits and vegetables they eat.

#### Materials:

Various fruits and vegetables cut in two parts; one part the "control", one part that has been dehydrated or under a heat lamp Scale Pictures of the process A chart to record findings

#### Time:

Set up done during the map activity 10 minutes

#### **Procedure:**

During the map activity, the instructor will call students over to weigh the control and experimental halves of the same fruit or vegetables. The students will record their findings on a chart. The students will get back into a group and look at the chart. The instructor will lead a group discussion with the following talking points: Why do the two halves weigh differently? What is the difference? Why do some foods have more differences than others? Let's rate the foods on which have the most and least significant differences. (from script)So, which fruit has the lowest percentage of water? (*banana*)Which vegetable has the highest percentage of water? (*cucumber*) What is your favorite fruit or vegetable; does it have a high or low percentage of water? Good job everyone! Fruits and vegetables are good sources of water and other nutrients. Remember that you should eat fruits and vegetables at every meal and snack.

#### Follow-up/ Assessment:

The first activity of Module 14 will incorporate information learned.

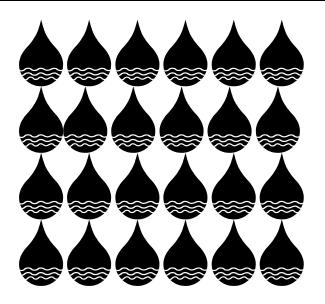
#### Modifications:

It would be more desirable for the students to weigh the foods put it under the heat lamp and measure it the next day.

# DROP MARKS THE SPOT



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#### Module 13: Wonderful Water

#### **Introduction**

#### 1. Welcome students back to HOP'N Club. Say,

This is the thirteenth week of HOP'N Club. What is HOP'N Club? HOP'N Club is a once a week club where we focus on four healthy goals. What are the four HOP'N Goals? Be Physically Active everyday. (Great. How many minutes should we try to get at least? 60 minutes And how many minutes after school? 30) Eat fruits and vegetables at every meal or snack. Cut back on T.V. and video games. (Does that mean never watch T.V.? No, but we should try to limit our T.V. to 2 hours a day.) Drink less soda and juice drinks. (Does that mean never drink soda and juice drinks? No, but we should try to limit our soda and juice drinks to less than one glass a day.) What does HOP'N stand for? Healthy Opportunities for Physical Activity and Nutrition. Today, we will talk a lot about drinking water.

#### Water Relay

#### 1. Put the students in groups of 3 or 4. Say,

One student sit down behind the "line"; the other students will be challenged to get the sitting student across a line on the other side of the gym. Any group where the "sitter" does anything but sit crisscross with their arms criss-crossed across their chest will be disqualified; also the other students can only touch the "sitters" back and shoulders and no pulling my occur. When you cross the line a new "sitter" will be chosen.

#### 2. Restart the game introducing the use of

**scooters**. Give a scooter to each group. The students will continue to play the game with scooters. The game will end when all the students have had a chance to be sitters.

#### 3. Lead the students in a discussion. Say,

Water works like the scooters. Water keeps your body lubricated and makes movement easier.

Water is the main ingredient of the fluids in your body systems. Fluids travel through your body, carrying nutrients and waste to and from all your cells and organs. Your heart, your eyes, your intestines, and even your big toe need water-based fluids to survive.

Water Makes Things Move. As you digest food, the food moves through your intestines. At the end of the trip, the stuff your body doesn't need gets ready to leave your body as waste, which is called a bowel movement. And if you guessed that water is the ingredient that moves everything along, you're right! Water helps your intestines do their job more efficiently by keeping things moist.

Water keeps things cool. People's bodies like to be at about 98.6 degrees Fahrenheit. But if you're running around or doing physical activity, you can feel pretty hot. Sometimes you don't even need to be moving - if the weather's warm enough, you can feel hot just sitting still. That's where water comes in, by cooling you down with sweat. When your body generates heat, water comes up through your skin as sweat, and it evaporates into the air. As the sweat evaporates, it cools down your skin, which cools down your blood. When your blood is cooler, your insides become cooler, and your whole body cools down. It's like your body's own personal air conditioner!

OK, last one here. When you're doing physical activity, don't wait until you're thirsty to drink up. Did you ever get a very dry mouth and suddenly feel very thirsty? That's because your body already needed water and was trying to tell you by keeping water from going to the salivary glands (these glands make saliva, or spit, which is made from water, remember?). So your mouth felt all dried out, and you had a drink. But when it's hot or you're moving a lot, it's much better for you to drink even when you're not thirsty. You'll feel better and have more energy.

# <u>Yo Ho H<sub>2</sub>O</u>

**1.** Ask the students to think of sources of water in their school.

2. Explain that based on the information the students just learned about water, that water is a treasure.

3. Supply various art supplies to create a treasure map to sources of water in their school.

## 4. Circulate the room assisting students.

#### Modifications:

Could have a map of the school (like the one used for drills) available to the students.

## **Review**

#### 1. Remind the students. Say,

Water is important, because it keeps your body lubricated. Everyone did a great job on your treasure maps. Because it is so important, we will continue to talk about drinking water.

# 2. Collect nametags.