

# Penn State Extension

## How Much Water Are You Eating

### INTRO:

Teaching youth to understand the value of water is enhanced when they fully understand all of the ways they use water every day. In this activity, youth learn how much water is in their foods and reflect on the use of water in agriculture. This activity is designed to fit a short time frame, such as a table fair event. (adapted from “How Much Water is in Your Food” – 4-H Water Project Unit 2)

### MATERIALS:

- Demonstration Foods (ideally you want to use actual foods or their empty packaging - but pictures would work as well) – Popped Popcorn, Wheat Cereal, Bacon, Bread, Eggs, Corn, Fish, Apple, Milk, Cucumber (if you want to use different foods, there is a list on p. 4 of the 4-H Water Project Unit 2 with additional options or you could search online for the percentage of water in foods.)
- 10 clear identical containers with lids – glass jars or plastic tumblers for example
- Blue Food Coloring and Water
- 10 Cards labeled 1-10

### SET-UP:

- In advance of the activity, label each lid with the name and percent water of one of the demonstration foods.
  - Popped Popcorn – 5%, Wheat Cereal – 15%, Bacon – 25%, Bread – 50%, Eggs – 65%, Corn – 70%, Fish – 80%, Apple – 80%, Milk – 88%, Cucumber – 98%
- The jars will be filled with a volume of water that matches the percentage of water in each of the demonstration foods. Measure the total height of your container, and calculate the height that matches the percentage of water for each demonstration food. Then fill each container with water to the corresponding height. It easiest if you draw a mark on each container at the correct height.
  - Example – If using an 8 inch tall container, multiply 8 by 65% to get 5.2 inches. Mark the container at a height of 5.2 inches from the bottom. This is the height to which you will fill the container labeled Eggs.
- Add a few drops of blue food coloring to each container to make the water level easier to see.
- Lay the numbered cards out, in order, across the front of a table.
- Hide the filled water containers out of sight (in a box on the table works well).

### OPENING QUESTIONS:

- Is water important to you?
- What are some different ways you use water every day?
- How much water are you eating?

Adapted from *Incredible Water with the Water Lion* by Jennifer R Fetter, Watershed Youth Development Educator - Penn State Extension.

## INSTRUCTIONS:

- 1.) Show the youth the ten different foods you have prepared. Ask them if they think there is any water in these foods.
- 2.) Have them to work together (if you have a group) to put the ten foods in order from the least amount of water to the most amount of water in each food, by placing them on top of or next to the cards labeled 1-10.
  - a. If the youth are old enough, explain to them that the amount of water in each food is calculated as a percentage, so it doesn't matter how big or small the food is.
- 3.) Once they have settled on their final order, reveal the filled containers for each food – placing them behind each of the corresponding foods.
- 4.) Have the youth observe the volumes of water, and see if they are in order from emptiest to fullest or not.

## FOLLOW-UP AND WRAP-UP

- Did you guess the order correctly?
- Are you surprised about the amount of water in each of the foods?
- Can you think of other foods that might have a lot of water in them?
- Do you think there are any foods with no water in them at all?
- How do you think the water gets inside of each of these foods?
- Is water important for producing food?
- How can you help to conserve water?

*The human body is approximately 60-65% water depending on your age and gender*

*Every day you lose water through your breath, perspiration, urine and bowel movements. For your body to function properly, you must replenish its water supply by consuming beverages and foods that contain water.*