Know how. Know now.

Sippin' on Sweets

Outcome Area: Healthy Lifestyles
Curriculum Area: Healthy Lifestyles Education
Specific Project(s): Tasty Tidbits, YOUth in Motion
Description of Activity:
Age Level: 10-18
Group Size: any
Time Involved: Preparation Time: **Activity Time:**
Supplies Needed:

- 3 tall glasses
- 3 cups water, divided
- 9 teaspoons sugar
- Liquid measuring cup
- Measuring teaspoon
- Funnel
- 2 coffee filters, #4 size
- Clock or watch with second hand

Leader Discussion:
Water might not seem like an important nutrient, but it is! Did you know that water makes up to 50 - 75% of your body? You can't live without it. Even your brain is 75% water. Water is also used to carry nutrients to other parts of your body, remove wastes and all the leftover stuff your body doesn't need, and helps regulate your body temperature so you don't get too hot and dehydrated. Even on days where you aren't working hard and working out, you lose about nine cups of water through sweat, urine and your breath. If you do participate in sports, you need even more! Without it, you can't cool down, so make sure to drink plenty of water every day!

During hot weather and hard workouts, you need to may need to plan ahead for hydration. Drink as much as you can ahead of time, and eat foods that contain a lot of water. Carbohydrates, such as fruit and vegetables, are high in water. Don't rely on your sense of thirst - by the time you realize you are thirsty, you are already in need of water! Drink water during the event, especially during warm or hot water. Drink enough water after the event as well. A good rule to remember is to drink two cups of water to every pound lost in sweat. Don't have a bottle of water handy? Use the water fountain! Two large gulps of water can equal 1/4 cup of water.

Many kids who participate in sports believe that special water replacement beverages, ades, or sports drinks work better than plain water when it comes to rehydrating before, during, or after a workout or event. Most colas and other soft drinks contain about nine teaspoons of sugar in a 12-ounce can. Sports drinks have a high concentration of sugar as well. Why aren't they as fast or as good as plain water at replacing fluids your body lost?

Activity Directions:

1. Measure 1½ cups of water into a tall glass. Measure the remaining 1½ cups water into another glass and add the nine teaspoons of sugar to it. Mix it well.
2. Line the funnel with a coffee filter. Set it on top of the third empty glass.
3. Pour the plain water through the funnel. Note how many seconds it takes to pass through the filter.
4. Line the funnel again with a coffee filter. Now pour the sugar water through it. Note the time it takes to pass through it.

Discussion:

1. How long did it take for the plain water to pass through the filter? (Answer varies, but plain water takes less time to pass through the filter than sugar water.)
2. How long did it take for the sugar water to pass through the filter? (Answer varies, but sugar water takes longer to pass through the filter than plain water.)
3. If you think of the coffee filter as your stomach, what do you conclude about these drinks and your stomach? (The amount of sugar in soda, fruit juices, and sports drinks causes the liquid to be absorbed more slowly than plain water. Such liquids do not help you get rehydrated when you are thirsty as quickly as possible. Cold water is best - it absorbs fastest through the stomach to the places where it is needed.)

Credits:

Tasty Tidbits, 4-H Foods Level B, 4-H 793, Purdue Research Foundation, West Lafayette, Indiana, ©, 1993, revised/96.

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