

Cucumbers

1. Is a cucumber a fruit or vegetable? Make a list of produce items that are considered vegetables but are really fruits, and explain the difference.

Deciding whether something is a fruit or a vegetable can be tricky, since they can be defined by their botanical parts or their common culinary usage. This explains why a tomato is technically a fruit (it has seeds), but is usually thought of as a vegetable. These are the simple definitions based on plant parts:

- A fruit is the part of a plant that you can eat that contains seeds, such as an apple, pear, or strawberry.
- A vegetable is the stem, leaf, or root of a plant that you can eat, such as lettuce, carrots, or asparagus.

The following are fruits by botanical definition, but we call them vegetables in the *Network for a Healthy California*: tomatoes, avocados, pumpkin, squash, cucumber, green beans, peppers, and eggplant.

*Definition from [Power Play! School Idea & Resource Kit](#) (Activity 1).

2. Research the importance of water to health. Why does the body need water?

Water is essential for life. The many roles water plays in the body can be divided into three major categories:

- (1) water provides normal turgor (or fullness) for tissues and cells;
- (2) water provides a solvent in which a wide variety of body tissue solutions are based and in which chemical reactions take place; and
- (3) water provides the means for maintaining a stable body temperature. Water also has many other vital functions in the body.

Water carries nutrients, lubricates joints, and helps to get rid of waste products.

3. How much water does the body need daily? How do you calculate that amount? What is your plan for getting enough water each day?

The body needs about 1 mL of water per calorie consumed per day, or about 2000 mL (2 liters) or about 8 cups of water daily for the average person. Water can come from beverages and foods. Fruits and vegetables have a high water content compared to other foods.

Note to teachers: When reviewing students' plans, look for healthy beverage choices (e.g., non-soda, no added sugars).

4. What are the “compartments” that hold water in our bodies?

The body's water is contained in two main compartments called *intracellular fluid* (inside cells) and *extracellular fluid*. The extracellular fluid is then divided into three compartments: *intravascular* (within the blood), *intercellular* (between the cells), and *extravascular* (outside the blood).

5. What does *parthenocarpy* mean?

Parthenocarpy means a natural production [of fruit] without pollination and sexual fertilization. The results are called "parthenocarpic" and the fruit has no seeds. When the ovules have not been fertilized they do not develop into mature seeds. The ovary will still develop into a fruit.

Sources:

www.cdfa.ca.gov

www.lpl.arizona.edu/~bcohen/cucumbers/info.html

www.anrcatalog.ucdavis.edu

www.eatright.org

<http://jn.nutrition.org>

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