The Science of Watermelon Seeds

Middle School Science

Objective: Discover how many seeds are in a watermelon using the scientific method.

Supplies:
- Watermelon (cut into equal size slices for each student or small group and displayed in front of the class)
- Paper plates (1 per watermelon slice)
- Spoons (1 per student)
- Activity sheets (1 per student or group)

Scientific Method Steps:
- **Identification and Observation.**
- **Hypothesis Formulation.**
- **Experimentation.** Demonstrate truth or falseness of hypothesis.
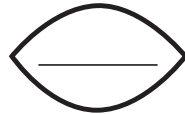- **Conclusion.** Check the accuracy of or modify hypothesis.

1. Identification and Observation.
a. Identify problem – write a statement below about what the class is trying to discover. (May be done by an individual, a small group, or a class.)

_____

b. BRIEFLY observe the watermelon slices.

c. Estimate the number of black seeds in a slice and in the entire watermelon. An **estimate** is an approximate calculation or judgment of the value, number, quantity, or extent of something.

Estimate the number of seeds in 1 watermelon slice: _____

Estimate the number of seeds in entire watermelon: _____

2. Hypothesis Formulation. (May be done as a class.) Write a hypothesis that is based on your estimation and relates to your problem in #1. A **hypothesis** is a proposed explanation based on limited evidence as a starting point for further investigation. It should include the words "if" and "then".

Hypothesis example: If a plant receives fertilizer, then it will grow larger than a plant that does not receive fertilizer.

If _____,

then,_____.

3. Experimentation.
a. Collect 1 watermelon slice, a paper plate, and a spoon.

b. Count the number of black seeds in your watermelon slice and write the number below. (Enjoy the watermelon slice when you are done!)

Number of seeds in my watermelon slice: _____

4. Conclusion.
a. Write your name (or group name) on the board and number of seeds in your watermelon slice next to it.

b. Add up all of the seeds from the different watermelon slices in the class and enter the number below.

There are _____ seeds in the entire watermelon.

c. Was your hypothesis correct? _____