Estimania

Description: Students will be asked to estimate the answers to seven questions.

Age Group: Upper elementary.

Estimated Time: 15 minutes.

Key Question: How accurately can a person estimate the answer to various questions?

Content Expectations Addressed: Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.

Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.

Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science through history and within society.

Teacher Information: The ability to estimate the answer to a problem can be very useful in giving clues as to the likelihood that a particular answer is correct. It can also help one in decision-making. For example, one could decide whether to continue with a home improvement project after estimating the cost of a portion of the project.

Science Process Skills: Observing, estimating and calculating.

Materials: Salt, plastic spoons, jar of pennies, toothpicks, paper clips, craft sticks, jar of jelly beans, plastic funnel, empty plastic box labeled #6, empty glass bottle labeled #7, Ziploc bags, masking tape, and a one cup measuring cup.

Procedure: Students answer a series of questions such as:

1. How many pennies are in the jar?

2. Choose any object in the room and predict how many Popsicle sticks long it is. Then measure the object and compare.

3. Predict how many Popsicle sticks long your arm is. Measure and compare.

4. How many toothpicks are in the box?

5. How many jellybeans are in the bag?

8. How many spoonfuls (of salt) will it take to fill the box marked #6?

7. How many ounces of water will the bottle hold?