



Can We Win a Jellybean Contest?

Purpose:

To make reasonable estimates.

Materials:

[Per group of no more than 4 students]

1 jar of dried- or jelly-beans

1 clock or watch [digital, or one with a sweep second hand]

1 nickel

15 pennies

Science Processes:

Estimating

Using numbers, calculating

Communicating

Safety Information:

Plastic containers may be substituted for glass jars, if the teacher sees fit. No other safety concerns are anticipated.

Flesch-Kincaid Reading Level:

Grade 6.5

National Science Standards:

Teaching Standards B, C, D, E; Assessment Standard A; Content Standards A, G.

Advance Preparation:

Try to use jars which approximate a cylinder in shape, with straight (un-tapered) sides. It is advisable to use dried beans, as opposed to jelly beans, since they're less of a "temptation." The teacher should decide whether the beans are actually counted before being added to the jars. It is not necessary



to do so; in fact, it may mislead students into believing that all questions *have answers*, and in the sciences, this is rarely the case! Student-monitors may help you setting up the apparatus. It's best to keep the jars covered with lids, to prevent "spilling the beans."

Procedure Notes:

You may have to help students locate their own pulse. Discourage students from using their thumbs, since it has a pulse too.

Answers to Questions:

1. Estimates will differ.
2. The most accurate estimates are based on the most data.

Conclusion:

Estimates can be improved by basing them on as much information as possible.

