

Goal: Fill jars with objects, so others can estimate how many are inside

Grades: K-6

Minimum number of participants: 2

Suggested grouping: individual

Time: 10-20 minutes

Math: estimating, counting

Materials:

Clear plastic cups, about 8 oz: 1 per child

Rubber bands: 1 per cup

Plastic wrap: 1 roll

Objects for filling cups, such as beads, pasta, pompoms

Scrap paper and pencils

Prerequisites: none

Books about estimating and counting:

365 Penguins. Fromental, Jean-Luc. (Abrams, 2006).

need book name. Leedy, Loren. (Henry Holt, 2000).

Before beginning

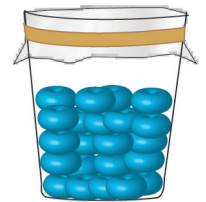
Use the activity, Mystery Jar, with the group.

1 Introduce the project

Children will be making their own “Mystery Jars.” Others will estimate how many objects are inside.

Demonstrate the process:

- Count out objects to fill a cup.
- Cover the cup with plastic wrap, and secure it with a rubber band.



2 Count and fill

Distribute materials. Help children choose objects:

Easy: Choose larger objects so that 10-20 will fill the cup.

Medium: Choose medium objects so 20-50 will fill the cup.

Hard: Choose small objects so that 50 or more will fill the cup.

How can you group the objects so they're easy to count? If you count them by 2's and then you count them again by 5's, will you get the same answer?

Talk About...

3 Record the count

Children record the number of objects in their cups on a piece of scrap paper. They put the paper where no one can see.

Help children cover cups with plastic wrap and a rubber band.

4 Trade jars

Children exchange jars. Each estimates how many inside, then counts to check.

Children bring home their jars for family members to estimate and count.



There are 6 on the top layer and 5 layers, so 30.

Variations

Jar a day. Each day, display one of the Mystery Jars children made. Invite others to estimate how many in the jar and explain how they know.