

Materials Needed

- Bottle caps
- Paper cut-outs (or equivalent),
- Objects with flat, writable surfaces in two colors – 60 of one color and 12 of the other
- Marker, pencils
- Optional: small bucket or similar container

Grade Range

K-2

Topics/Skills

Solving addition and subtraction problems

Learning Standards

CCSS Math: [Operations & Algebraic Thinking](#)

Duration

20-45 minutes

Prep Time

15-20 minutes

Zero Wins

Make a number sentence that equals zero!



Students practice math operations by selecting numbers and operators and arranging them to make number sentences.

Activity Challenge

Use numbered objects, and addition and subtraction, to model a number sentence that sums to zero.

Preparation

1. Review the Materials Needed list and gather 60 flat, writable objects of one color. Divide the objects into six sets of 10 objects each.
2. Label each set of 10 objects with numbers 0-9 using a marker.
3. Label 12 objects of a different color. Six objects will be labeled with a plus sign (+) and the other six objects will be labeled with a minus sign (-). These are the addition and subtraction operators.

To Do

1. Students put the numbered objects upside down, on the table, and mix them up. Optional: put the numbers in a container.
2. Each student takes five numbers and one of each operator ((+) and (-)).
3. Students select three of their numbers, along with the operators, and try to make a number sentence that equals zero (see above). If successful, they earn a point. If not, they may use their remaining numbers and try again, or select more numbers and operators to use.
4. Students record their number sentences on a sheet of paper.
5. Some number sentences result in negative numbers. Students should rearrange them and try again or select a different set of numbers.

Guiding Questions

- Why are addition and subtraction necessary for number sentences to equal zero?
- How long can number sentences be and still sum to zero?

Extensions

- Include operators for multiplication and/or division.
- Create numbered objects with fractions, decimals, or money.

The Content behind the Activity

Children need opportunities to learn and apply math concepts and skills. This activity provides students with a hands-on experience that is focused on addition and subtraction of numbers from 0-9 and can also be modified to explore larger numbers that are less than 100. These skills are applied as students practice grouping number and performing advanced operations in the later grades.