

K.OA Many Ways to Do Addition

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Task

Materials

- Class white board and one marker
- Paper and pencil for students
- Materials such as counters or linker cubes
- Number lines that go from 0 to 10

Actions

- The teacher writes a simple addition problem on the white board. This should be a problem that is within easy grasp of all students, such as $3+2$.
- Students then solve the problem using whichever strategy they choose. Then the teacher and the class should establish that the answer is 5. The focus of this lesson isn't the solution $3+2 = 5$ but rather making explicit to students all the ways they can go about solving such a problem. However, young learners love to have the "answer" to things and students won't be able to focus on the next part of the problem until they know the teacher knows that they know the answer.
- The teacher should then have students brainstorm all the ways they can solve an addition problem like $3+2$. Students should be encouraged to imagine a different strategy than the one they used. Students should talk with a partner first so everyone can have a chance to participate.
- Once students have been given about 90 seconds to talk, the teacher should bring the class back together. The teacher can use a random calling method such as sticks with students' names or can take raised hands. Random calling will ensure that many students get a chance to talk. The teacher will compile a list on the board of all the ways students have come up with.

This list should include:

- draw a picture of the problem

- using fingers to count
- using a number line
- counting on
- using counters
- knowing a subtraction fact and using that information (such as $5-2=3$, therefore I know that $2+3=5$)
- using knowledge of all the ways to make five, such as $0+5$, $1+4$, $2+3$

To get variety, the teacher can ask, "Did anyone do it another way?" Students may come up with ways other than those described here; the teacher should include all reasonable responses in the list. The teacher may need to provide a few of the higher level ideas, such as using a subtraction fact or counting on.

Once students have brainstormed ideas, the teacher should give them another chance to talk. The teacher can use the give one/get one procedure. Students stand up and find a friend to talk to. They give the friend one addition strategy and then get one additional strategy.



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