**K.CC Finding Equal Groups**

Alignments to Content Standards:  K.CC.B.5

**Task**

**Material**

- Assorted objects to create the groups
- Clear ziplock bags or small cups
- Index cards and stickers
- An egg timer or a kitchen timer

**Action**

The teacher will assemble a variety of groups of objects in a few different forms. For example the teacher might put together:

- an index card with 5 stickers
- a clear ziplock bag with 7 beans
- a cup filled with 4 pennies
- an index card with a 4 smiley faces drawn onto it
- a clear ziplock bag with 4 unifix cubes inside
- 5 crayons held together by a rubber band
- a picture of 7 fingers
- 5 small toy animals in a clear ziplock bag
- 7 erasers in a small cup
- a group of 4 pencils held together by a rubber band

The teacher will give students a timer, and the students will race against the clock to sort the groups of objects into three separate groups (grouped by quantity) by the time the timer is finished. This can be played individually or in pairs.

**IM Commentary**
The purpose of this task is for students to build fluency in counting. Fluency is about being able to quickly and efficiently use the knowledge that is stored in one's brain. The timer is used so that students will use their most efficient counting strategies.

Prior to starting the activity, the teacher should tell students that since they will be timed, they should use their most efficient counting strategies. Before the task, a whole group discussion about how to go about counting several items may help to get the students in this mode as not all students will intuitively use the most efficient counting strategies unless prompted to do so. There should also be some time after the task where students share their counting strategies. The assumption is that those who used the most efficient counting strategies will be able to beat the clock. This can be further motivation for other students to use more efficient counting strategies. The teacher could also lead a discussion about why counting efficiently is helpful in students' lives. Students could brainstorm real life examples of when they might (or have) used efficient counting strategies.

This activity can be done without direct teacher supervision. It would be well suited to be implemented during math station time where an adult (teacher, parent, classroom aid) is in close proximity to provide corrective feedback but does not need to be led by the teacher. Additionally once the teacher has set this station up s/he can simply change the quantities in the groups and students can repeat the activity. The teacher can also increase the quantities as students' counting skills deepen.

Students should be instructed not to take the objects out of their bags, rubber bands or cups. They can count them bounded or bagged. If each group of objects is taken apart, it will make it very time consuming for the teacher to refresh the station for the next group of students!

Initially, the groups should primarily be physical objects, such a bag with 5 small animals. As students get more proficient with counting, they should count increasingly more abstract representations of groups of objects. For example, they might sort a set of index cards with stickers arranged in different configurations:
The teacher may need to experiment with how long to set the egg timer and the quantities the students are working with. The list above should be given a two or three minute time limit but larger quantities will probably need more time.

Edit this solution

Solution

Students will have the sets of objects and cards grouped according to the same number of objects/pictures.