



Division and Fair Share

K-2

Learn about division by separating a larger group of blocks into smaller groups of equal size (fair shares)

Children learn early about sharing things with others. This sharing, when done in a fair or equal manner, helps the child start to understand early concepts of division.

Preparation and Materials

The teacher should prepare several overheads or pre-developed scenes for viewing on a classroom monitor, using a pre-selected number of cubes arranged in different shapes.

Procedure

1. The teacher should discuss the idea of fair sharing with students. Examples to use could be associated with toys, food, or other objects.
2. Using the GollyGee Blocks, the students bring 12 cube blocks into a scene, arranging them in a circle, and choosing a number that can divide into twelve evenly (i.e., 12, 2, 3, 4, or 6).
3. The teacher should instruct the students to divide the cubes in the circle into the chosen number of groups. Students may optionally use Color and Texture tools to

make each group of blocks different, but each member of the subsets should match in color or in texture.

4. Students should count the number of blocks in each group to confirm that all groups (subsets) have the same number of members.
5. The teacher should have the students print out the scenes and write the number sentence (equation) for their division under the scene. The equation should read $12 \text{ divided by (number of groups) = (number of blocks in each group-subset)}$.

Evaluation

- The teacher should check individual printouts for correctness and discuss how the twelve were divided into equal subsets.
- The teacher should observe the students while they work on the activity.
- The teacher should check to be sure the number of groups and the number of members of each division group subset is equal and talk about other ways and other situations where fair share is important to us. This is a follow-up to the session's introduction conversation.

Extension Activities

- Use a starting scene with more than 12 blocks. The teacher can make a scene of this and have the students make their own scenes by placing the appropriate number of blocks into them. Discuss what happens when an uneven number of objects is chosen. Is the resulting division a fair share? Something will always be left over so that the fair share concept does not apply.
- The teacher can have students make a booklet of scenes showing fair sharing for a group of even numbers. A flip book could also be made to animate the sorting process (division) by taking snapshots and putting them together.

Hints and Tips

Connections for this activity in grades 2 and 3 may include discussing and connecting the concept of division in fair shares to FRACTIONS (i.e., $\frac{1}{2}$ of 12, $\frac{1}{3}$ of twelve, $\frac{1}{6}$ of twelve).