





## ACTIVITY 1.1 ESTIMATION STATION

Your students can't estimate enough! This is true regardless of how fluent they are with computations, how well they solve problems, or how quickly they learn new content. Estimation is an important life skill. For this activity, you want to gather plastic bags, jars, small baskets, or any other container. Put a random number of objects in each container. You might use two-colored counters, teddy bear counters, centimeter cubes, or everyday objects such as crayons and pencil-tip erasers. Place the different containers around the room to create estimation stations.

For the lesson, have partners travel to each station in your room, estimate the number of objects, and record their estimate.

After all estimates have been made, the class comes together. You show one of the collections and ask students about their estimates, recording different ideas on the board. Be sure to lift up estimates that are close together and those that are far apart. Do this for each collection.

### TEACHING TAKEAWAY

You can have students estimate a collection and record their numbers on a number line. After the exact amount is found, you can record that number. Then discuss the placement of these numbers.



After class estimates have been recorded, send students back to the stations. Have them count the exact number of objects (marbles, cubes, or crayons) that are in each collection. Note that you can choose to have each group count each collection or have a group count one collection and share their results. Bring the group together to compare the actual amount in each collection with student estimates. Help them know that 72 and 73 are both good estimates for a collection of 68 things. Stress that estimates are close and that guessing the correct number is all well and good but not the point of an estimate.

After providing this experience, you can work an estimation station into your daily class routines. It could be something done first or it could be part of a center or station. To minimize prep time, share estimation collections with your teammates and have a student create the estimation collection (count the objects and fill it) at the end of the day so it's ready for the next day.

### TEACHING TAKEAWAY

Incorporate estimation as often as you can. In reading, you might hold up a book and ask students to estimate the number of pages. Before passing out materials, you can estimate the number of them. Be sure to estimate using think-aloud to call attention to your thought process.