

Investigations

Book: Bigger, Taller, Heavier, Smaller – Investigation 2

Session: 6-7

Page: 54-57

1. Concept:

- Exploring measuring techniques
- Measuring capacity
- Relating size and shape to capacity
- Comparing capacities of different containers
- Counting quantities

2. CSOs:

- MA.0.1.4.2 select appropriate units and tools to measure and compare two objects or events according to volume.

3. Technique/Procedure/Introduction/Set:

- Recall the Choice Time activities from the previous math lesson. The three activities are “Comparing Bottles”, “Which Holds More Cubes?”, and “Block Puzzles”. Recall the results that were found from the previous lesson, and tell the students that they will be finding more results today. The class will compare these to yesterday’s results after Choice Time.
- The students will go to Choice Time activities. Observe them as they work.
- After Choice Time, gather a variety of bottles from the water stations and a bucket of water. Also have three different containers that have not been used for the follow-up discussion.
- Have students recall what they have discovered about capacity. Talk about how they measured and how they found out which containers held more water. Ask the students if they can tell which bottle will hold more water just by looking at it. Have some student helpers demonstrate and fill the containers with water.
- Show the students the three containers that have not been used yet. Have them predict which two will hold the same amount of water.

Have student helpers demonstrate and discover which two containers hold the same amount of water. Discuss the different shapes of containers.

Closure:

- Review capacity with the students. Have them recall everything that has been learned and the results throughout Investigation 2.

Homework:

- No homework. For an extension, have students find other containers around the classroom to use in this experiment. Also, students may use color tiles, connecting cubes, or other manipulatives to fill containers.

4. Today's Math/Assessment:

- Today's Math page 166 "Take a Close Look"
- Observations
- Student sheet 5
- Student sheet 12

5. Materials:

- Interlocking cubes (class set, available in tubs of 50-60)
- Containers labeled with letters (for cube activity)
- Student sheet 5 (1 per student)
- Student sheet 12 (1 per student)
- Pattern Blocks and Block Puzzles from Sessions 2-4
- Three containers of different shapes, two with the same capacity
- Funnels (1 per pair of partners)
- Bucket of Water

6. Vocabulary: capacity, prediction, funnel, continuous quantities, countable objects