

Mark the Spot

Grade 4

Lesson 405

Topic Overview

Students predict where a group of packed blocks on a Place mat will end up when unpacked and placed on a number line.

Objectives

Thinking Skills: Students use logical reasoning to make connections between two views of the same number.

Mastery Skills: Students link a location on a number line with a specific collection of packed blocks.

Materials

Each group of four students needs:

- 5 - 10 blocks-of-100
- One place mat
- One color paper clip to mark the spot (each group needs a different color)
- Access to a 0-1000 Digi-Block number line

Class Demonstration

(5 - 10 minutes)

Provide each group of students with all materials listed above. Present the game, "Mark the Spot":

- Students play this game in teams of two.
- To begin, one team puts a collection of blocks in the appropriate columns on the Place mat.
- The other team goes to the class number line to predict where the blocks will end when they are unpacked and lined up end to end. To do this, they take a color paper clip and clip it next to their predicted spot on the number line.
- Both teams work together to unpack the blocks and place the single blocks end to end in as straight a line as possible.
- One student in the group gets the number line. The group lines up the number line next to the long line of single blocks. (Note: Students must be careful to start at the "0" mark.)
- Both teams check to see where the blocks ended on the number line.
- If the single blocks end up at the point where the marker is located, the team that placed the marker gets one point.
- The teams take turns, alternating the team that places a set of blocks on the mat.

After playing a few rounds, the team with the most points wins.

Student Activity

(20 - 30 minutes)

Students work together with their partner to play the game.

Closure

(8 - 10 minutes)

Discuss with students what they thought about the game. How did they predict where the blocks would end up on the number line? Were some situations harder to figure out than others? If so, what made these situations difficult to figure out?

Assessment

As the class works, walk around the room observing student behavior.

- Are the students working collaboratively?

- Are they following the directions correctly?

Observe students as they play the game?

- Do they place blocks in the correct places on the Place mat?
- How do they decide which point to mark on the number line? Do they count by ones? Do they count by tens and/or hundreds?
- Can they say the number name for a group of blocks? Can they say the number name for a location on the number line?

Extension

Play the game in the reverse way. One team lines up single blocks and finds out where it ends on the number line. The other team predicts how many blocks will be in each section of the place mat when the blocks are packed as much as possible and placed on the mat. That team puts a digit flip card in each place on the mat to show their prediction. The two teams work together to pack the blocks and place them on the mat. If the team's prediction is correct, they score a point. As in the game before, the team with the most points after a few rounds wins the game.