1–20 Number Path

Research has shown that number lines may be conceptually too difficult for young children to understand and that educators should consider using number paths until a child is in 2nd grade (Fuson et.al., 2009).

A number path is a counting model; the numbers are defined by rectangles, and each rectangle can be counted. A number line is a length model like a ruler, where the numbers are defined as their length from zero. Number lines make it difficult for young children to see the units. On a number path the units are simple to recognize.

Counting models should help build understanding and fluency with ease. As a counting model, the 1–20 Number Path supports math goals, including the development of number sense, fluency with small numbers, subitizing, and making tens.

Sample Activities

Guess My Number
(1.OA.5), (1.NBT.3), (2.OA.2)
Have students place a marker on a number on their number path that is (choose from the following):
- 10 more than 2
- 4 more than 6
- less than 16
- greater than 12

Ask students to share their answer and tell the number sentence that makes it true. Using the pocket chart version of the number path, follow along with the student's explanation or have the student share on the ActivBoard.

Number Path Skip & Hop
(1.OA.5), (1.OA.8)
Have students place a marker on a number on their number path to follow and ask them to share where they end up:
- add 4
- subtract 2
- move to the left 1
- move to the right 1

Number Talk
Materials: Dot images
Briefly show the class a dot image of a number from 1 to 10. Ask students to discuss how they knew or guessed the number.

Number of the Day
Choose a number for the day. Using the number path as a reference, ask:
- What is greater than our number?
- What is less than our number?
- What two numbers could represent our number?

Roll & Compare
(1.NBT.2), (1.NBT.3), (2.OA.2)
Play with a partner.
Materials: 2 0–5 dice, or 2 1–6 dice, or 2 number cubes with digits that correspond to the 1–20 Number Path.
Partner 1 rolls two dice, places a chip on one number, and uses the number path to add the other number. Partner 2 does the same. The two partners compare their answers. The partner with the greater number gets a point. The partner who gets to 10 points first wins.
Variations:
- Roll the dice and the partner who has the lesser sum gets the point.
- Roll the dice and the partner who has an even sum gets the point.
- Roll the dice and the partner who has an odd sum gets the point.

Measure Up: A Scavenger Hunt
(1.MD.1), (2.MD.1)
Choose 4 to 6 items in the classroom for students to measure. Students use their number paths to measure these items and then compare their lengths.