

PRACTICE TASK: More or Less-Make a Guess?

Approximately 1-2 days

STANDARDS FOR MATHEMATICAL CONTENT

- MCC.K.CC.1.** Count to 100 by ones and by tens.
- MCC.K.CC.2.** Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- MCC.K.CC.4.** Understand the relationship between numbers and quantities; connect counting to cardinality.
- d. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
 - e. Understand that each successive number name refers to a quantity that is one larger.

STANDARDS FOR MATHEMATICAL PRACTICE

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

BACKGROUND KNOWLEDGE

“Though the concept of less is logically related to the concept of more (selecting the set with more is the same as not selecting the set with less), the word *less* proves to be more difficult for children than *more*. A possible explanation is that children have many opportunities to use the word *more* but have limited exposure with the term *less*. Having students focus on which quantity is *less* through questioning will help students better understand the meaning of *less*.” (Van de Walle, 2010).

ESSENTIAL QUESTIONS

- What is the difference between “more” and “less”?
- What types of questions should I ask myself or my partner when playing a math game?
- How do we know if a number is more or less than another number?

MATERIALS

- *More or Less-Make a Guess* game board
- 21 counters, markers, or other objects to hide the numbers on the number line
- Folder or object to hide mystery number

GROUPING

Whole group and partner task

TASK DESCRIPTION, DEVELOPMENT, AND DISCUSSION

Cut the game board along the dotted line and give each player a half. Player 1 hides their board using a folder or book and places a counter on their number line at the location of the mystery number. *It is important that player two does not see the location of the counter.*

Player 2 begins to ask questions about the mystery number Player 1 has identified on their number line. With each question, Player 2 eliminates the numbers on their number line that they know CANNOT be the answer. Example: if Player 2 asks, “Is your number more than 15?”, and Player 2 responds, “No “, Player 2 covers the numbers 16, 17, 18 ,19, and 20. Notice that 15 was not covered because it is equal. **DO NOT TELL STUDENTS THIS STEP.** Allow for this conversation to develop through the course of the game. The playing is where learning happens.

If Player 2 identifies the number in 5 or less tries, Player 2 makes the mystery number. If the Mystery number is not identified in 5 or less tries, the players roles are reversed.

FORMATIVE ASSESSMENT QUESTIONS

- What strategy are you using to find the mystery number?
- How does “more” and “less” help you identify the mystery number?

DIFFERENTIATION

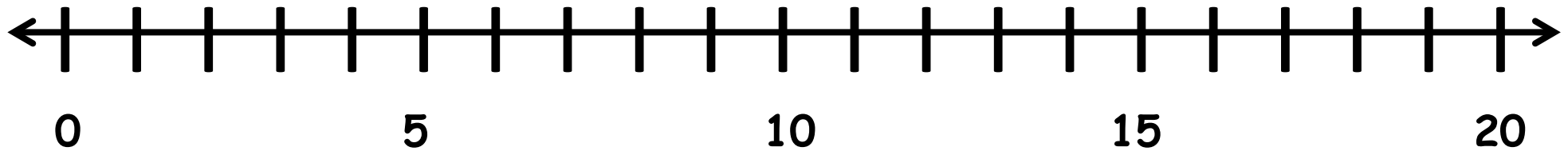
Extension

- Play *More or Less-Make a Guess* on a 0-99 chart using only the numbers 0-20.

Intervention

- Write the numbers on the number line so that students can actually see which number they are trying to guess or reduce the numbers to 0-10.

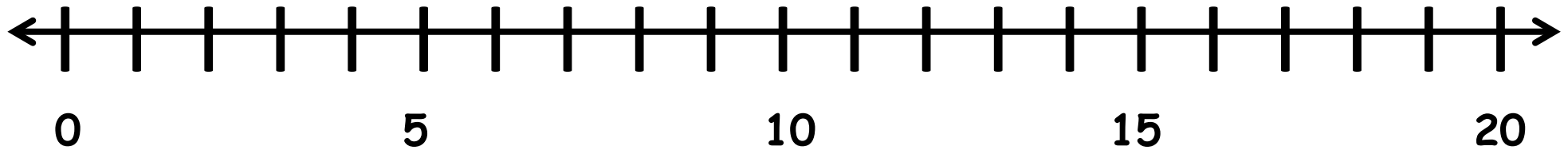
More or Less-Make a Guess Player 1



Cover a number on the number line with a counter. Don't let your partner see the number.



More or Less-Make a Guess Player 2



Try and guess the number your partner has covered by asking questions. (example: Is your number greater than 12?)
Cover numbers on your board which you have eliminated.