

## Just in Time Quick Check

### Standard of Learning K.NS.2

#### **Strand: Number and Number Sense**

#### **Standard of Learning K.NS.2**

**The student will identify, represent, and compare quantities up to 30.**

*Students will demonstrate the following Knowledge and Skills:*

- a) Read, write, and identify the numerals 0 through 30.
- b) Construct a set of objects that corresponds to a given numeral within 30, including an empty set.
- c) Determine and write the numeral that corresponds to the total number of objects in a given set of 30 or fewer concrete objects or pictorial models.
- d) Given a set of up to 30 objects, construct another set which has more, fewer, or the same number of objects using concrete or pictorial models.
- e) Given a numeral up to 30, construct a set which has more, fewer, or the same number of objects using concrete or pictorial models.
- f) Compare two sets containing up to 30 concrete objects or pictorial models, using the terms *more*, *fewer*, or the *same as* (*equal to*).
- g) Compare numbers up to 30, to the benchmarks of 5 and to the benchmark of 10 using various models (e.g., five frames, ten frames, number paths [a prelude to number lines], beaded racks, hands) using the terms *greater than*, *less than*, or the *same as* (*equal to*).

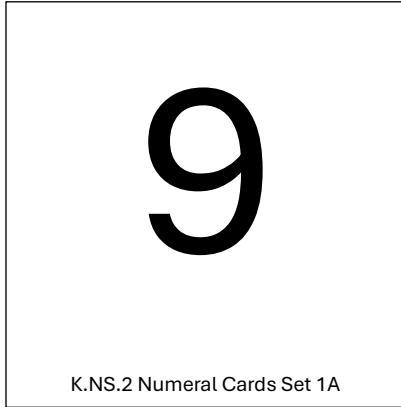
#### Just in Time Quick Check

#### Just in Time Quick Check Teacher Notes

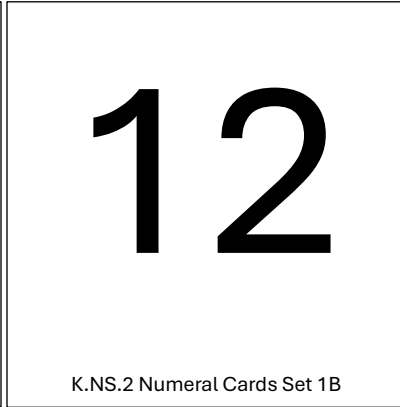
**Supporting and Prerequisite SOL: K.NS.1**

**K.NS.2 Just in Time Quick Check: Student Interview**

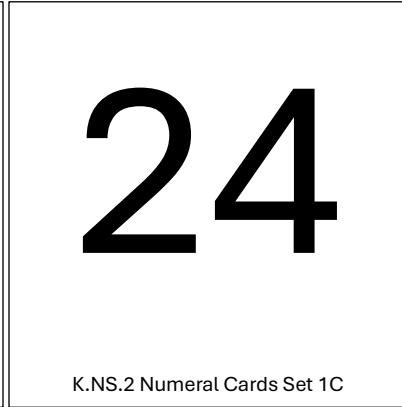
**Numeral Cards Set 1**



K.NS.2 Numeral Cards Set 1A

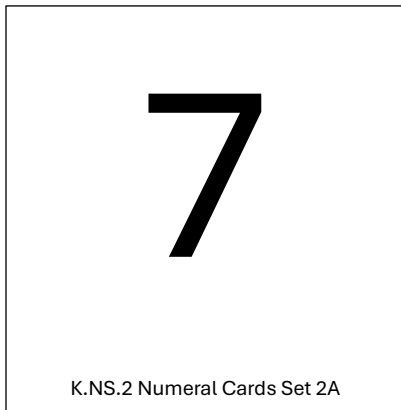


K.NS.2 Numeral Cards Set 1B



K.NS.2 Numeral Cards Set 1C

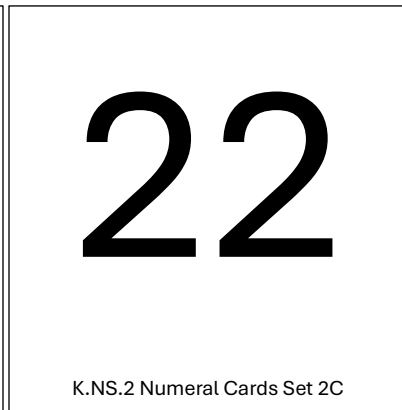
**Numeral Cards Set 2**



K.NS.2 Numeral Cards Set 2A

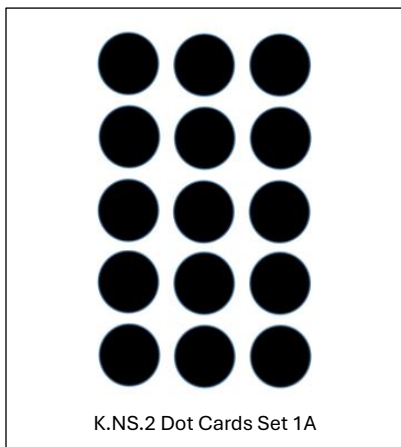


K.NS.2 Numeral Cards Set 2B

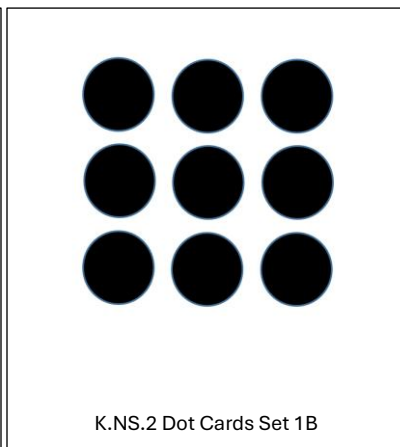


K.NS.2 Numeral Cards Set 2C

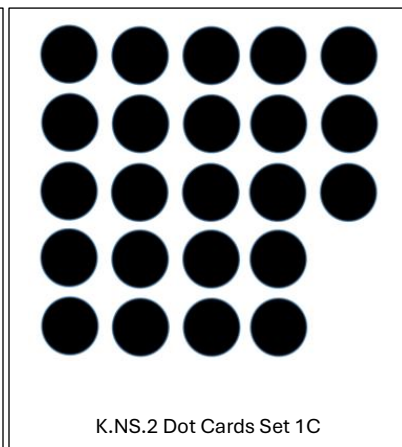
**Dot Cards Set 1**



K.NS.2 Dot Cards Set 1A



K.NS.2 Dot Cards Set 1B



K.NS.2 Dot Cards Set 1C

Teacher Note: For this interview, you will need 30 counters, the number cards and dot cards from page 2, and paper and pencil or a dry erase board and marker for the student.

1. Use the three number cards from Set 1. Place each card, one at a time, in front of the student.
  - Place card 1A in front of the student. Say: *Read this card to me.*
  - Repeat with cards 1B – 1C.
  
2. Provide the student with a pencil and paper. The student will use the pencil and paper to write some numbers.
  - Say: *Write these numbers for me. (Pause after each number to give the student time to write.) Five. Twenty-six. Thirteen.*
  
3. Provide the student with a set of 30 counters. Use the three number cards from Set 2. Place each card, one at a time, in front of the student.
  - Place card 2A in front of the student. Say: *Can you create a group with this number of counters?*
  - Repeat with cards 2B – 2C.
  
4. Use the dot cards from Set 1.
  - Place cards 1A and 1B in front of the student. Ask: *Which set has fewer?*
  - Place cards 1A and 1C in front of the student. Ask: *Which set has more?*

5. Provide the student with 30 counters, paper and a pencil. Use the three dot cards from Set 1.
- Place dot card 1A in front of the student. Say: *Count these dots. Write that number on your paper.* Then say: *Can you create a set of counters that has fewer than this number?*
  - Place dot card 1B in front of the student. Say: *Count these dots. Write that number on your paper.* Then say: *Can you create a set of counters that is the same as this number of dots?*
  - Place dot card 1C in front of the student. Say: *Count these dots. Write that number on your paper.* Then say: *Can you create a set of counters that has more than this number?*

## Just in Time Quick Check Teacher Notes K.NS.2

### Common Errors/Misconceptions and their Possible Indications

1. Use the three number cards from Set 1. Place each card, one at a time, in front of the student.
  - Place card 1A in front of the student. Say: *Read this card to me.*
  - Repeat with cards 1B – 1C.

*A common error is for students to misread a number or confuse numbers. For instance, students often confuse 6 with 9. Students generally make these errors if number and letter reversals are common for the student. These students will need additional practice with counting and matching the correct number with the set of objects counted. These errors can also indicate that additional number recognition practice is needed. If students have difficulty recognizing and/or saying the numbers 11-19, additional opportunities to practice reciting teen numbers and connecting the number name with the numeral will be helpful.*

2. Provide the student with a pencil and paper. The student will use the pencil and paper to write some numbers.
  - Say: *Write these numbers for me.* (Pause after each number to give the student time to write.) *Five. Twenty-six. Thirteen.*

*It is common for young students to reverse numerals when writing them. It is typical for students to progress through phases where they may write a single numeral backwards. For most students, writing reversals will self-correct over time with additional opportunities to record quantities. However, some students may benefit from additional kinesthetic experiences writing numbers (e.g., writing numbers with shaving cream, playdough, bag of rice) before moving to paper and pencil. A number track may be used as a visual reference along with explicit instruction in number formation.*

*Some students may switch the order of digits when writing numerals, especially when working with teen numbers (e.g., writing 31 for thirteen or 61 for sixteen). This error often occurs because students hear the digit in the ones place first when teen numbers are read aloud. It may be beneficial to focus on the teen numbers as ten and some more, reinforcing that thirteen is ten and three, and sixteen is ten and six.*

3. Provide the student with a set of 30 counters. Use the three number cards from Set 2. Place each card, one at a time, in front of the student.
- Place card 2A in front of the student. Say: *Can you create a group with this number of counters?*
  - Repeat with cards 2B – 2C.

*Students may be able to match a quantity with a number for numbers to 10 but may struggle more with numbers 11-19, or numbers beyond 20. Teen numbers especially can be a challenge for many younger students as these numbers do not follow the pattern of the other decade numbers (e.g., thirteen vs. thirty-one). Students who are have difficulty representing numbers to 20 will benefit from additional practice representing quantities, particularly with the numbers 11-19. Developing this skill requires many opportunities to practice over time. It is recommended that the quantities start small and increase over time (e.g., numbers to 10, 13, 16, then to 20 and beyond).*

6. Use dot cards from Set 1.

- Place cards 1A and 1B in front of the student. Ask: *Which set has fewer?*
- Place cards 1A and 1C in front of the student. Ask: *Which set has more?*

*Some students have difficulty with selecting the set with “fewer” because they have had less exposure to this word. Students who struggle identifying sets with fewer may need additional exposure to the term “fewer” and opportunities to use the term when describing quantities. When comparing two sets, it may be helpful for teachers to ask, “Which is more?” and “Which is fewer?” Asking both questions when comparing quantities will help students connect the words and the concepts of “more” and “fewer.” Having students build a set of a certain quantity, then asking them to build different sets that contain fewer, more, and the same quantity will help to develop an understanding of these terms.*

4. Provide the student with 30 counters, paper and a pencil. Use the three dot cards from Set 1.

- Place dot card 1A in front of the student. Say: *Count these dots. Write that number on your paper. Then say: Can you create a set of counters that has fewer than this number?*
- Place dot card 1B in front of the student. Say: *Count these dots. Write that number on your paper. Then say: Can you create a set of counters that is the same as this number of dots?*

- Place dot card 1C in front of the student. Say: *Count these dots. Write that number on your paper.* Then say: *Can you create a set of counters that has more than this number?*

*Students may struggle to count the larger collections of dots represented on the cards. If students struggle to count with one-to-one correspondence, provide additional experiences counting with concrete manipulatives prior to transitioning to counting pictorial representations. Students may need instruction on tracking and pointing in rows or columns as they count dots in pictorial representations.*

*Some students may be confused by perceptual cues presented in the cards, such as the length of the row or the spacing of the counters in the set. If this is the case, encourage students to use matching counters to compare the set and then build a set that shows the same amount.*