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### **Comparison of Length, Weight, Capacity, and Numbers to 10**

#### **OPPORTUNITIES BY LESSON**

The examples below represent possibilities for observing students working with the key concepts for Module 3. The list is not exhaustive; additional opportunities for assessment exist and may be used. Select one opportunity for observational assessment in each lesson. With practice, it may be possible to record observations at more than one point in the lesson.

### **Mid-Module (Topics A–D)**

**Lesson 1**

Concept Development—Listen to students’ comparison statements (longer than, shorter than, taller than). Which students correct you when endpoints do not align?

* **Describes several measurable attributes of an object [K.7A]**
* **Compares lengths of two objects [K.7B]**
* **Aligns endpoints when comparing length or height [K.7B]**

Problem Set—As students work, take note of the students circling the correct object without hesitation. Do students align endpoints when drawing objects that are taller or shorter?

* **Compares lengths of two objects [K.7B]**
* **Aligns endpoints when comparing length or height [K.7B]**

**Lesson 2**

Concept Development—Listen as students measure objects in the classroom with string. Do students use comparison statements? If they have not yet developed this language, can they identify the longer/taller object?

* **Describes several measurable attributes of an object [K.7A]**
* **Compares lengths of two objects [K.7B]**
* **Aligns endpoints when comparing length or height [K.7B]**

**Lesson 3**

Concept Development—Listen to students make comparison statements. When modeling for students, occasionally misalign endpoints and notice which students correct you. Do students align the endpoints correctly?

* **Describes several measurable attributes of an object [K.7A]**
* **Compares lengths of two objects [K.7B]**
* **Aligns endpoints when comparing length or height [K.7B]**

**Lesson 4**

Application Problem—Check student drawings for accuracy. As a variation, have students walk around the room and make or statements while they compare their heights to objects in the classroom.

* **Compares lengths of two objects and uses comparative language [K.7B, K.2G]**

Concept Development—When modeling for students, occasionally misalign endpoints and note which students correct you. Listen to students make longer than/taller than/shorter than comparison statements with their 5-sticks. Do students align the endpoints correctly?

* **Describes several measurable attributes of an object [K.7A]**
* **Generate a number that is one more [K.2E, K.2F]**
* **Compares lengths of two objects and uses comparative language [K.7B, K.2G]**
* **Aligns endpoints when comparing length or height [K.7B]**

**Lesson 5**

Concept Development—Listen to students make comparison statements with their linking cube sticks. Do students use longer than, taller than or shorter than statements correctly?

* **Describes several measurable attributes of an object [K.7A]**
* **Generate a number that is one less [K.2E, K.2F]**
* **Aligns endpoints when comparing length or height and uses comparative language [K.7B, K.2G]**

**Lesson 6**

Concept Development—Listen to students compare various objects with their linking cube sticks. Can students make longer than/taller than/shorter than comparison statements? Do students align endpoints correctly?

* **Describes several measurable attributes of an object [K.7A]**
* **Generate a number that is one more [K.2E, K.2F]**
* **Aligns endpoints when comparing length or height and uses comparative language [K.7B, K.2G]**

**Lesson 7**

Fluency: Roll and Draw 5-groups—Can students draw a 5**-**group formation equal to the number they roll on the dice?

* **Creates a set to compare more than, less/fewer than, and the same as [K.7B, K.2D]**

Concept Development—Listen as students make statements to compare length.

* **Describes several measurable attributes of an object [K.7A]**
* **Compares lengths of two objects [K.7B]**
* **Aligns endpoints when comparing length or height and uses comparative language [K.7B, K.2G, K.2D]**
* **Compose and decompose numbers [K.2I]**
* **Generate a set using concrete models to represent equal to. [K.2E]**

**Lesson 8**

Concept Development—As students compare weights of objects with their hands, observe their gestures as well as their statements. Can they accurately identify the heavier and lighter object in a pair?

* **Compares weights of two objects [K.7B]**
* **Describes several measurable attributes of an object [K.7A]**

**Lesson 9**

Concept Development—Listen as students use balance scales to compare the weights of objects. Take note of students who begin to make weight comparison statements on their own.

* **Compares weights of two objects [K.7B]**
* **Describes several measurable attributes of an object [K.7A]**

**Lesson 10**

Concept Development—Listen as students work in groups to compare the weight of an object with pennies. Make notes as students discuss discoveries.

* **Compares weights of two objects [K.7B]**
* **Describes several measurable attributes of an object [K.7A]**
* **Tells how many smaller units have the same weight as a larger unit [K.7B, K.4]**

**Lesson 11**

Conceptual Development—Can students see that the shape of the clay does not affect its weight?

* **Compares weights of two objects [K.7B]**
* Describes several measurable attributes of an object **[K.7A]**

**Lesson 12**

Concept Development—Check the recording sheet for accuracy. Which students can make a statement about how many smaller units are the same weight as their object (a larger unit)?

* **Describes several measurable attributes of an object [K.7A]**
* **Tells how many smaller units have the same weight as a larger unit [K.7B]**
* **Compares weights of two objects [K.7B]**

Student Debrief—Listen to student responses to the first and third bullets. Can they make connections between the weights of the objects and the number of objects in each set?

* **Tells how many smaller units have the same weight as a larger unit [K.7B]**

**Lesson 13**

Concept Development—Take note of the students who begin to make capacity comparison statements on their own.

* **Compares volumes of two containers [K.7B]**
* **Describes several measurable attributes of an object [K.7A]**

Student Debrief—Listen to students describe different attributes of the containers. How do they describe capacity? Can they identify which containers have more/less capacity?

* **Compares volumes of two containers [K.7B]**
* **Describes several measurable attributes of an object [K.7A]**

**Lesson 14**

Concept Development—Listen to students describe the attributes of the containers. Can they accurately identify which containers have more/less capacity?

* **Describes several measurable attributes of an object [K.7A]**
* **Compares volumes of two containers [K.7B]**

**Lesson 15**

Recording Sheet—Check the recording sheet for accuracy. Which students can make a statement about how many scoops are in the larger unit? Make note of the students who begin to make capacity comparison statements on their own.

* **Tells how many smaller units have the same capacity as a larger unit [K.7B]**
* **Describes several measurable attributes of an object [K.7A]**
* **Compares volumes of two containers [K.7B]**

### **End-of-Module (Topics E–H)**

**Lesson 16**

Concept Development—Can students match the snack supplies to each individual and clearly state if they need more or less or if there are just enough?

* **Matches to compare sets [K.2E, K.2G]**

Problem Set—Observe as students draw lines to see if there are enough pennies for each piggy bank. Can they accurately match with 1:1 correspondence?

* **Matches to compare sets [K.2E, K.2G]**

**Lesson 17**

Concept Development—Observe students manipulating their cubes in the second half of the Concept Development and during the game. Do they easily match cubes to dots on the dice and make comparison statements?

* **Matches to compare sets [K.2E, K.2G]**

Problem Set—Observe as students match scarves and hats. What do students do to determine which set has more, fewer, or the same number of objects? Do students draw more leaves than ants? Note the strategy they use to compare sets. Do they match or use the relationship between numbers?

* **Matches to compare sets [K.2E, K.2G]**
* **Counts to compare sets [K.2E, K.2G]**
* **Creates a set to compare more than, less/fewer than, or the same as [K.2E, K.2G]**

**Lesson 18**

Fluency: Show Me 1 More, 1 Less—Can students accurately show 1 more or 1 less? If students have difficulty holding up fingers, let them use counters for this activity.

* **Creates a set to compare more than, less/fewer than, or the same as [K.2E, K.2G]**

Problem Set—Listen to students counting the sets. What do students do to determine which set has more, fewer, or the same as? Do students draw fewer suns than stars?

* **Counts to compare sets [K.2E, K.2G]**
* **Creates a set to compare more than, less/fewer than, or the same as [K.2E, K.2G]**

Student Debrief—Listen to student responses to questions 2 through 4. What strategies do students use to compare sets?

* **Matches to compare sets [K.2E, K.2G]**
* **Counts to compare sets [K.2E, K.2G]**

**Lesson 19**

Application Problem—How do students determine whether their first or last name has more/fewer letters? Do they just know by looking? Can they articulate a strategy they use? Advanced students may be able to tell you how many more or fewer.

* **Matches to compare sets [K.2E, K.2G]**
* **Counts to compare sets [K.2E, K.2G]**

Problem Set—Check the accuracy of student’s work on the Problem Set. Can students use the numerals they wrote in sentences to compare the sets? Listening to students count and compare verbally is acceptable when assessing whether students can count to compare sets.

* **Counts to compare sets [K.2E, K.2G]**
* **Compares numbers 1–10 with sets of objects [K.2E, K.2G, K.2H]**

**Lesson 20**

Concept Development—Observe students as they write on their recording sheets. Can students use the numbers to compare the sets of shapes?

* **Compares numbers 1–10 with sets of objects [K.2G, K.2H]**

Student Debrief—Listen for students using words or phrases like, “I counted and there were more triangles than circles,” or “3 is smaller than 9 so there are fewer of this shape than those shapes.”

* **Counts to compare sets [K.2G]**
* **Compares numbers 1–10 with sets of objects [K.2G, K.2H]**

**Lesson 21**

Problem Set—Can students draw sets to show 1 more, 1 less, and the same as? If drawing the objects takes too much time, drawing lines, circles, or dots is acceptable.

* **Creates a set to compare more than, less/fewer than, or the same as [K.2G, K.2H]**

**Lesson 22**

Problem Set—Can students draw sets to show 1 more? If drawing the objects takes too much time, drawing lines, circles, or dots is acceptable.

* **Creates a set to compare more than, less/fewer than, or the same as [K.2E, K.2G, K.2F]**

**Lesson 23**

Concept Development—Observe as students play the game with a partner. Can they make sets that are 1 more than those of their partners? Do students count all their cubes to compare the sets?

* **Creates a set to compare more than, less/fewer than, or the same as**  
   **[K.2E, K.2G, K.2F]**

Problem Set—Can students draw sets to show 1 less? If drawing the objects takes too much time, drawing lines, circles, or dots is acceptable.

* **Creates a set to compare more than, less/fewer than, or the same as**  
   **[K.2E, K.2G, K.2F]**

**Lesson 24**

Problem Set—Pay close attention to the panda bear–cat problem. Do students accurately identify that there are more cats than panda bears (8 is more than 7)?

* **Compares numbers 1–10 with sets of objects [K.2G, K.2H]**
* **Matches to compare sets [K.2G, K.2H]**
* **Counts to compare sets [K.2G, K.2H]**

Problem Set—Can students use the numerals they wrote in sentences to compare the sets?

* **Creates a set to compare more than, less/fewer than, or the same as**  
   **[K.2G, K.2H]**
* **Compares numbers 1–10 with sets of objects [K.2G, K.2H]**

**Lesson 25**

Student Debrief—Listen to student descriptions about how they compared. Are they matching? Counting? Do they consider the relationship between numbers?

* **Compares numbers 1–10 with sets of objects [K.2G, K.2H]**
* **Matches to compare sets [K.2G, K.2H]**
* **Counts to compare sets [K.2G, K.2H]**

**Lesson 26**

Problem Set—Can students use comparison statements without naming the objects?

* **Compares numbers 1–10 with sets of objects [K.2G, K.2H]**
* **Counts to compare sets [K.2G, K.2H]**

Student Debrief—Listen to student descriptions about how they compared. Can students use comparison statement without naming the objects?

* **Compares numbers 1–10 with sets of objects [K.2G, K.2H]**
* **Matches to compare sets [K.2G, K.2H]**
* **Counts to compare sets [K.2G, K.2H]**

**Lesson 27**

Concept Development—Can students tell which set of chimes has more or less? For more personalized assessment, give sets of chimes to individual students. This is a fun, engaging activity.

* **Compares numbers 1–10 presented as written numerals (without objects) [K.2H]**

Problem Set—Check for accuracy. Take note of students who may use fingers or counters.

* **Compares numbers 1–10 presented as written numerals (without**  
  **objects) [K.2H]**