1. Each student in the class put a sticky note in the chart to show the vegetable they like best. Use the table below to answer the questions. Remember to label your answers.

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<th>Vegetables that Students Like Best</th>
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<tbody>
<tr>
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a. How many students like carrots the best? _________________

b. How many students like carrots and peas the best? _________________

c. How many total students answered the survey? _________________

d. How many more students like broccoli than like peas the best? _________________

e. How many fewer students like broccoli than like carrots the best? _________________
2. Cesar has a piece of string that he wants to use to compare how far his cat’s bed and his dog’s bed are from their shared water bowl.

The string is a lot **longer** than the dog’s path to the bowl. The string is a lot **shorter** than the cat’s path to the bowl.

Whose path is shorter to their water bowl, the dog’s or the cat’s? Draw a picture to show how you know.
3. Circle the pictures that show a correct measurement. is a centimeter cube.

a. Why did you pick these pictures? Explain your thinking with two reasons.

b. What was the length measurement of the bone for each correct picture?

c. Why are the (d) and (e) measurements with paper clips different?
4. Measure the length of the picture of each item with centimeter cubes.

   a.

   [Images of a train, pencil, and lollipop]

   ______ centimeters
   ______ centimeters
   ______ centimeters

   b. Order the train, pencil, and lollipop from shortest to longest.

   ________________________________

   c. Which item, or items, are longer than the lollipop?

   ________________________________

   d. How much longer is the pencil than the train?

   ________________________________
Lesson
New York
State Common Core
End
-of-
Module Assessment Task

NYS COMMON CORE MATHERMATICS CURRICULUM

Module 3:
Ordering and Comparing Length Measurements as Numbers

Date:
3/12/14

Standards Addressed

Represent and solve problems involving addition and subtraction.

1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. (See Glossary, Table 1.)

Measure lengths indirectly and by iterating length units.

1.MD.1 Order three objects by length; compare the length of two objects indirectly by using a third object.

1.MD.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.

Represent and interpret data.

1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Evaluating Student Learning Outcomes

A Progression Toward Mastery is provided to describe steps that illuminate the gradually increasing understandings that students develop on their way to proficiency. In this chart, this progress is presented from left (Step 1) to right (Step 4). The learning goal for each student is to achieve Step 4 mastery. These steps are meant to help teachers and students identify and celebrate what the student CAN do now and what they need to work on next.
<table>
<thead>
<tr>
<th>Assessment Task Item and Standards Assessed</th>
<th>STEP 1: Little evidence of reasoning without a correct answer. (1 Point)</th>
<th>STEP 2: Evidence of some reasoning without a correct answer. (2 Points)</th>
<th>STEP 3: Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer. (3 Points)</th>
<th>STEP 4: Evidence of solid reasoning with a correct answer. (4 Points)</th>
</tr>
</thead>
</table>
| 1.1.MD.4 1.0A.1                         | The student demonstrates little to no understanding of how to read or interpret the graph. | The student demonstrates some understanding of how many students are represented in the graph in a given category or categories (may be off by one or two), but is unable to solve either of the comparison problems accurately. | The student correctly solves (a), (b), and (c), but solves (d) or (e) incorrectly. Or, the student solves the comparison problems (d) and (e) correctly, but is unable to correctly solve (a), (b), and/or (c). | The student correctly:  
- Identifies and solves (a) as 7, (b) as 11, and (c) as 16.  
- Compares the quantities and writes the difference between the two quantities for questions (d), 1 student, and (e), 2 students. |
| 2.1.MD.1                                 | The student demonstrates little to no understanding of the comparison. | The student demonstrates some understanding of how the string can be used to compare the two paths (i.e., by using pictures), but provides inaccurate responses. | The student identifies that dog’s path is shorter, but is unable to provide a clear explanation. Or, the student incorrectly identifies the cat’s path as shorter, but is able to draw a picture to explain (this may reflect a linguistic interpretation issue). | The student correctly:  
- Identifies that dog’s path is shorter.  
- Explains how the string could be used to compare the distance from each desk to the door (transitivity), by drawing pictures. |
| 3.1.MD.2 1.0A.1                         | The student demonstrates little to no understanding of proper measurement technique or reasoning behind it. | The student demonstrates some understanding of proper measurement techniques by either selecting or measuring the correct items, but cannot explain her thinking clearly and accurately. | The student clearly and accurately completes three out of the four following components:  
- Identifies (b) and (d) as having the proper measurement.  
- Cites at least two key elements to measuring accurately (no gaps, gaps, gaps). | The student clearly and accurately:  
- Identifies (b) and (d) as having the proper measurement.  
- Cites at least two key elements to measuring accurately (no gaps, gaps, gaps). |
A Progression Toward Mastery

<table>
<thead>
<tr>
<th></th>
<th>Or, the student demonstrates some understanding of her thinking behind measurement methods, but cannot measure or identify measurements accurately.</th>
<th>measuring accurately (no gaps, attentive to endpoints, same-sized length units) in her own words.</th>
<th>attentive to endpoints, same-sized length units) in her own words.</th>
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<tr>
<td>4</td>
<td>The student demonstrates little to no understanding of how to measure or use the measurement to compare.</td>
<td>The student demonstrates some understanding of how to measure, but is unable to manipulate the measurements to order or compare.</td>
<td>The student accurately measures and orders the items by length, but is unable to solve one or the other comparison problems.</td>
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<tr>
<td>1.MD.1</td>
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<td>The student clearly and accurately:</td>
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<tr>
<td>1.MD.2</td>
<td></td>
<td></td>
<td>- Measures the train (8 cm), pencils (11 cm), and lollipop (9 cm).</td>
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<tr>
<td>1.OA.1</td>
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<td>- Orders the items by length (train, lollipop, pencil).</td>
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<td>- Identifies the pencil as longer than the lollipop.</td>
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<td></td>
<td>- Solves the comparison problem correctly by identifying the pencil as 3 centimeters longer than the train.</td>
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1. Each student in the class put a sticky note in the chart to show the vegetable they like best. Use the table below to answer the questions. Remember to label your answers.

### Vegetables that Students Like Best

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**a.** How many students like carrots the best? 
**7 Students**

**b.** How many students like carrots and peas the best? 
**11 Students**

**c.** How many total students answered the survey? 
**16 Students**

**d.** How many more students like broccoli than like peas the best? 
**1 Student**

**e.** How many fewer students like broccoli than like carrots the best? 
**2 Students**
2. Cesar has a piece of string that he wants to use to compare how far his cat’s bed and his dog’s bed are from their shared water bowl.

The string is a lot longer than the dog’s path to the bowl. The string is a lot shorter than the cat’s path to the bowl.

Whose path is shorter to their food bowls, the dog’s or the cat’s? Draw a picture to show how you know.
3. Circle the pictures that show a correct measurement. □ is a centimeter cube.

(a) 3 centimeters
(b) 4 centimeters
(c) 5 centimeters
(d) 2 paper clips
(e) 3 paper clips

a. Why did you pick these pictures? Explain your thinking with two reasons.

They both start at one end and go to the other end with the same size pieces.

b. What was the length measurement of the bone for each correct picture?

4 centimeters 2 paper clips

c. Why are the (d) and (e) measurements with paper clips different?

The paper clips in (e) are different sizes than the paper clips in (d).
4. Measure the length of the picture of each item with centimeter cubes.

a. 

[Image of a pencil with 11 centimeters and a train with 8 centimeters]

b. Order the train, pencil, and lollipop from shortest to longest.

train, lollipop, pencil

c. Which item, or items, are longer than the lollipop?

The pencil is longer than the lollipop.

d. How much longer is the pencil than the train?

The pencil is 3 centimeters longer than the train.