Core Content

**Cluster Title:** Describe and compare measurable attributes.

**Standard 2:** Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. (For example, directly compare the heights of two children and describe one child as taller/shorter.)

**MASTERY Patterns of Reasoning:**

**Conceptual:**
- Students will understand that two objects can be compared with common measurable attributes.
- Students will understand comparing vocabulary.

**Procedural:**
- Students can identify the tallest/shortest object.
- Students can identify which group has more or less.
- Students can describe the differences between two objects.

**Representational:**
- Students can use comparing/measuring vocabulary to compare two objects.
- Students can represent the comparison of objects that have measurable attributes with drawings, or use of other indications such as pointing or drawing a ring around the larger/smaller.

Supports for Teachers

**Critical Background Knowledge**

**Conceptual:**
- Students will understand that objects can be compared through their different attributes (size, length, weight).

**Procedural:**
- Students can use a basis measurement vocabulary (e.g., length [long/short], weight [heavy/light], size [big/small], and distance [near/far]).

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Students can compare objects using measurable attributes (e.g., length [long/short], weight [heavy/light], size [big/small], and distance [near/far]).

Students can tell why the objects were ordered in a given way.

**Representational:**
Students can order objects based on measurable attributes (size, length, weight).

**Academic Vocabulary and Notation**
- more of, less of, taller/shorter, heavier/lighter, compare, attributes, measuring, height

**Instructional Strategies Used**
- Teacher shows students two objects and asks students what they notice about each object, then asks students to compare the objects and explain their thinking.
- Teacher will stop to explain vocabulary words as they come up in discussion.
- Teacher will have students pair up and get two objects from the classroom to compare using newly acquired vocabulary words.
- Teacher will gather students back together and call up two students at a time for the class to compare the students’ attributes (with the exception of weight).
- Teachers will then transfer the skill of comparing two objects to comparing two groups of objects. The teacher will show the class two groups of the same object and ask students to compare the groups of objects.

**Resources Used**
- [http://pbskids.org/clifford/games/measuring_up.html](http://pbskids.org/clifford/games/measuring_up.html)
- [http://pbskids.org/curiousgeorge/games/count_your_chickens/count_your_chickens.html](http://pbskids.org/curiousgeorge/games/count_your_chickens/count_your_chickens.html) (reviews counting, then moves to comparing groups of chicks)


Teacher will introduce the vocabulary words *more/less of.*

Teacher will put students into small groups to compare two groups of objects using their newly acquired vocabulary words.

Teacher will gather students back together and group students by similar attributes, then ask the class to identify which group has more/less of a particular attribute (e.g., shoe color, shirt color, long or short hair).

<table>
<thead>
<tr>
<th>Assessment Tasks Used</th>
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<tbody>
<tr>
<td><strong>Skill-Based Task:</strong></td>
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<tr>
<td>Shown two objects, students will be able to identify the tallest/shortest.</td>
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<tr>
<td>Shown two groups of objects, students can identify which group has more and which group has fewer objects.</td>
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<td>Students will be able to compare themselves with a classmate on common measurable attributes.</td>
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<td>Students can build an object that is either taller/shorter or more/less than a given object/model.</td>
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<td><strong>Problem Task:</strong></td>
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<td>Students will bring in a teddy bear to compare with a friend’s teddy bear. Students can compare the height, weight, and size of bears. Bears can be sorted by similar sizes or colors into groups. These groups can then be compared to see which group has more or less of a particular attribute. Students will discuss their findings.</td>
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<tr>
<td>Make a “sorting by length” station at which students sort objects as longer, shorter, or about the same as a specified object. Change the reference object as needed.</td>
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<td>Give pairs of students a strip of tagboard, a stick, a length of rope, or other object with a length dimension. Ask students to find five things in the room that are shorter than, longer than, or about the same length as their object. Students can draw pictures or write the names of the things they find.</td>
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Rex, Michael; Ling, Bettina; and Burns, Marilyn. *The Fastest, Tallest, Biggest Snowman Ever (Hello Math Reader! Level 3, Grades 1 & 2).* Cartwheel, 1997.

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