

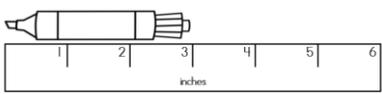
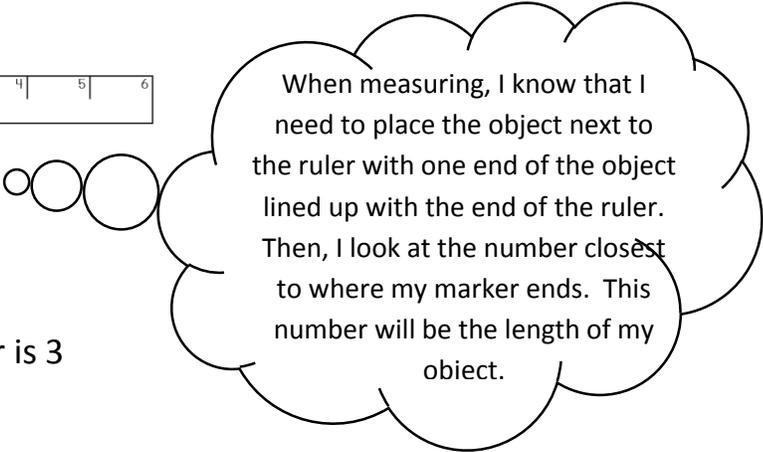
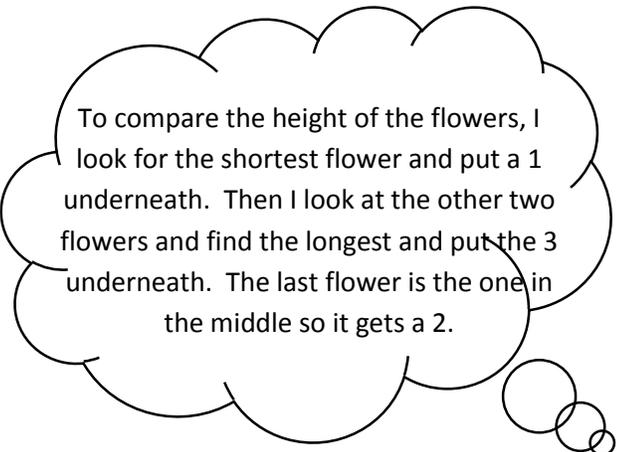
Grade 1 Important Math Information

Linear Measurement and Beginning Fractions

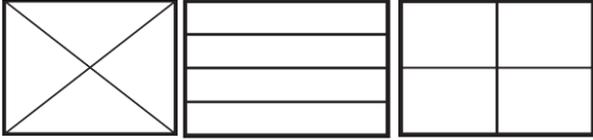


Dear Family,

We are beginning a new unit of study in mathematics called *Linear Measurement and Beginning Fractions*. This unit of study begins with lessons on length, including ordering objects by length, how length can be measured using various objects, developing accurate measurement techniques, and describing measurements that are in between whole number units. Students will then work on making direct and indirect comparisons to compare lengths of objects. The unit concludes with lessons that introduce students to fractions by partitioning circles and rectangles, creating two or four equal parts. Throughout the unit, students will be working on naming and finding the value of coins. The specific learning goals your student will be working toward are listed below with examples of student work showing understanding of each learning goal.

Learning Goal: Use a ruler to measure the length of an object to the nearest inch.	
Example Problem	Example Student Solutions
<p>Carlita wanted measure the length of her marker. How long is the marker, in inches?</p>	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Carlita's marker is 3 inches long.</p> </div> </div> <div style="margin-top: 20px;">  <p>When measuring, I know that I need to place the object next to the ruler with one end of the object lined up with the end of the ruler. Then, I look at the number closest to where my marker ends. This number will be the length of my object.</p> </div>
Learning Goal: Compare the lengths of two objects indirectly and order the lengths of three objects directly.	
Example Problem	Example Student Solutions
<p>Order the flowers from shortest to tallest. 1 is the shortest and 3 is the tallest.</p>	<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  <p>To compare the height of the flowers, I look for the shortest flower and put a 1 underneath. Then I look at the other two flowers and find the longest and put the 3 underneath. The last flower is the one in the middle so it gets a 2.</p> </div> <div style="display: flex; flex-direction: column; align-items: center;">  <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="text-align: center;"> <p>3</p> <hr style="width: 50px; margin: 0 auto;"/> </div> <div style="text-align: center;"> <p>1</p> <hr style="width: 50px; margin: 0 auto;"/> </div> <div style="text-align: center;"> <p>2</p> <hr style="width: 50px; margin: 0 auto;"/> </div> </div> </div> </div>

Learning Goal: Divide circles and rectangles into two and four equal parts and describe the parts as halves and fourths.

Example Problem	Example Student Solution
Show all the ways a rectangle could be divided into fourths.	 <p data-bbox="1157 233 1560 527">I know that to divide the rectangle in fourths, I need to be able to make four equal parts of the whole.</p>

Learning Goal: Name coins and their values

Example Problem	Example Student Solutions
What is this coin and how much is it worth? 	<p data-bbox="589 688 1094 947">The picture shows a dime. A dime is worth 10¢.</p> 

Mathematical Thinking and Practices Learning Goal: Choose tools and use them to help solve problems.

Things you can do at home to support your student throughout this unit of study:

- **Estimating Lengths**
Ask your child to help you estimate lengths in practical terms. For example, how many chairs can fit along one side of a table? How many steps does it take to walk from the kitchen to the front door?
- **Shorter Than My Arm**
Have your child estimate which objects around the house are shorter than your child's arm. Then have your child measure them to make sure. As an extension, choose a different body part or compare two lengths. For example, can you find something that is shorter than your leg but longer than your arm?
- **Marking Heights**
If you mark your child's changing heights regularly on the wall, this is a good time either to look at that height chart with your child and talk about it or perhaps to start a chart if you haven't been keeping one. You could also help your child put things in order by height – a group of boxes, some pieces of ribbon, or the child's stuffed animals. Ask your child to talk about which is the shortest and which is the longest. If your child has difficulty putting several things in order, you could sort the objects into three groups – short, medium, and tall.
- **Math and Literature**
Here are some children's books that contain ideas related to our work in this mathematics unit of study. Look for them in your local public library and read them together.
 - [Jim and the Beanstalk](#) by Raymond Briggs
 - [Inch by Inch](#) by Leo Lionni
 - [Guess How Much I Love You](#) by Sam McBratney
 - [Super Sand Castle Saturday](#) by Stuart J. Murphy
 - [The Littles](#) by John Peterson
 - [Math counts: Length](#) by Henry Pluckrose
 - [The Line Up Book](#) by Marisabina Russo
 - [If You Hopped Like a Frog](#) by David Schwartz

