MEASUREMENT ACTIVITIES FOR SECOND GRADE

COS # 10: Measure length in customary units, including inches, feet, and yards.
10.1: Using metric units.
10.2: Using appropriate tools, including rulers, yard sticks, meter sticks, or tape measures.

1. Use lesson 9-4 in SF TE for the introduction, demonstrating the centimeter and the meter (using centimeter cubes, centimeter paper, rulers and meter sticks).
2. Build a frame of reference for what a centimeter and a meter mean, separate of each other as well as compared to each other. See directions below for how to accomplish this task:

Directions for inches/feet/yard:
   a) Use red/yellow circular counting chips. Show students that an inch is comparable to one red/yellow counting chip.
   b) Use masking tape and tape 12 red/yellow counting chips to a foot (12-inch) ruler so students see that 12 inches equals one foot.
   c) Use masking tape and tape 36 red/yellow counting chips to a yardstick so students can see that 36 inches equals one yard. Turn over the yardstick and tape three foot rulers to the back so students can see that 3 feet equals one yard.

Directions for centimeter and meter:
   a) Line up centimeter cubes along a foot ruler and meter stick so students have a frame of reference for these units.

3. Conduct a “Measurement Scavenger Hunt” at school, using the attached recording sheet. Directions are on the recording sheet. After discussion, send the same sheet home for homework. Discuss the different items found at home and what the children discovered when they measured. Compare and contrast.

4. Students use the “Comparing Inches and Centimeters” sheet to compare the length of items in both measurement systems (see attachment).

5. Make a matching game. Use two colors of index cards. On one color, write lengths of items in centimeters and meters. On the other color, write the names of items. Students match the cards.

   1 centimeter
   width of paper clip

6. “How far can you jump?” activity where the students measure how far they jump in centimeters.

7. See Reaching All Learners, p. 347B in SF TE, “Measuring Meters” activity.

8. Measure throughout the year in both inches/feet/yards and centimeters/meters. Discuss the students’ observations.

10. Make measurement bags for partners. (This activity can be done individually but more bags would be required). Directions:
   a) Choose 5 items that will fit in a quart size Ziploc bag (some suggestions are: marker, clothespin, craft stick). Each bag needs to have the same items.
   b) Discuss with the students the name of the items. The teacher may write the names on the board. Complete directions are on the recording sheets.
   c) Complete the Recording Sheet for Metric Measurement (Parts I and II)—see attachment.

Extension Activities (NOTE: the COS does not include liquid or weight measurement, but the textbook addresses these concepts):

1. Investigating the Concept, SF TE lesson 9-8 for liters and lesson 9-12 for grams/kilograms.

2. Bring in containers using U. S. customary and metric liquid measurement. Illustrate cups, pints, quarts, and gallons as well as liters.

3. Students bring in containers from home with labels showing weight in U. S. customary and metric amounts, including ounces, pounds, grams and kilograms). Students organize the containers from least to greatest focusing on U. S. customary weight and then from least to greatest using metric weight measurement.

SF TE = Scott-Foresman Teacher’s Edition
MEASUREMENT SCAVENGER HUNT

Look around.
Find things that are about 1 inch, 1 foot, and 1 yard long.
Write them below.

A) Things that are about 1 inch long.
1. ______________________________________________________
2. ______________________________________________________
3. ______________________________________________________

B) Things that are about 1 foot long.
1. ______________________________________________________
2. ______________________________________________________
3. ______________________________________________________

C) Things that are about 1 yard long.
1. ______________________________________________________
2. ______________________________________________________
3. ______________________________________________________

Look around.
Find things that are 1 centimeter and 1 meter long.
Write them below.

A) Things that are about 1 centimeter long.
1. ______________________________________________________
2. ______________________________________________________
3. ______________________________________________________

B) Things that are about 1 meter long.
1. ______________________________________________________
2. ______________________________________________________
3. ______________________________________________________
Recording Sheet for Metric Measurement Activities I

Students may work with a partner.

☺☺ ☺☺ Look at the items in the bag.

☺☺ ☺☺ Take out one item at a time.

☺☺ ☺☺ Write the item’s name on the line below.

☺☺ ☺☺ Estimate how many centimeters long the item will be.

☺☺ ☺☺ Record your estimate on the sheet (use a pencil).

☺☺ ☺☺ Take out your centimeter cubes and line them up next to the item.

☺☺ ☺☺ Record your measurement on the sheet (use a crayon).

☺☺ ☺☺ How many centimeters away were you?

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Estimate</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Recording Sheet for Metric Measurement Activities II

*Students may work with a partner.*

- ☺☺ ☺☺ Look at the items in the bag.
- ☺☺ ☺☺ Take out one item at a time.
- ☺☺ ☺☺ Write the item’s name on the line below.
- ☺☺ ☺☺ Estimate how many centimeters long the item will be.
- ☺☺ ☺☺ Record your estimate on the sheet (use a pencil).
- ☺☺ ☺☺ Take out your **ruler** and turn to the centimeter side. Line the ruler next to the item.
- ☺☺ ☺☺ Record your measurement on the sheet (use a crayon).
- ☺☺ ☺☺ How many centimeters away were you?

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Estimate</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Measure each item. 

Record the measurements.

1. Your math book is ____________ centimeters long.
2. Your math book is ____________ inches long.

1. Your crayon is ____________ centimeters long.
2. Your crayon is ____________ inches long.

1. Your pencil is ____________ centimeters long.
2. Your pencil is ____________ inches long.

Choose an item to measure.

Write the name of the item and its measurement.

1. Your ____________________________ is __________ centimeters long.
2. Your ____________________________ is __________ inches long.

Think about your answers.

Which unit always gives you the larger number? 

Why do you think this happens?