Lab: Smile Metric Style

Objectives:

- to learn how to use a metric ruler to measure length
- to accurately read and record measurements taken in centimeters (cm) and millimeters (mm)

Materials: rulers, yarn/string, smiles

Procedures:

1. Take a piece of yarn/string and measure your partner's smile straight across from corner to corner.
2. Keep your fingers on the yarn/string as you transfer the yarn/string to the ruler.
3. Record measurements, cm and mm, in Table 1.
4. Throw the yarn/string away.
5. Record the data from the Class Stem and Leaf.

Data:

Table 1: Smile length +4

<table>
<thead>
<tr>
<th></th>
<th>cm</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>my smile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>partner's smile</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Stem and leaf of class data - smile length - cm +5

4.
5.
6.
7.
8.
9.
10.
11.
12.
Table 2: Summary data table of class smiles - cm +5

<table>
<thead>
<tr>
<th>Largest (cm)</th>
<th>Smallest (cm)</th>
<th>Number of Students</th>
<th>Sum (add all smiles)</th>
<th>Average (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis/Results:

1. How big is the largest smile? ________cm: _________mm +2
2. Smallest smile? ________cm___________mm +2
3. Including everyone, how big is our smile as a class? ________cm _________mm +2
4. What is the connection between the amount of mm and cm? +2
   ____________________________________________________ __________________________
   ____________________________________________________ __________________________
   ____________________________________________________ __________________________
   ____________________________________________________ __________________________

5. How many centimeters are on the class ruler? _________ Millimeters? _______ +2

Conclusion: In 2-3 sentences, explain what you learned in this lab.+2

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