UNIT: Measurement

Measure & Sort!

GOAL:

You will measure and compare the lengths of everyday classroom items. Then, you'll sort and analyze the data to look for patterns and relationships between objects.

Materials:

* Ruler (with **centimeters** and **inches**)
* (Optional) Digital or plastic **caliper** for precise measuring
* Small objects: pencil, eraser, spoon, stick, crayon, cube
* Measurement Recording Chart

STUDENT DIRECTIONS:

#### **Step 1: Measure Your Objects**

1. Pick one object at a time.
2. Use your **ruler** (or caliper) to measure:
	* **Length** (the longest side)
	* **Width** (the shorter side, if needed)
3. Record both measurements in **centimeters (cm)** and **inches (in)** in your chart.
	* Measure to the **nearest tenth** (e.g., 5.2 cm or 2.1 in)
	* Ask your teacher for help if you’re unsure how to read the ruler!

#### **Step 2: Complete the Measurement Chart**

#### Use a chart like this to keep your data organized:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Object** | **Length (cm)** | **Length (in)** | **Width (cm)** | **Width (in)** |
| Pencil |  |  |  |  |
| Eraser |  |  |  |  |
| Spoon |  |  |  |  |
| Stick |  |  |  |  |
| Crayon |  |  |  |  |
| Cube |  |  |  |  |

#### **Step 3: Sort the Objects**

1. Now look at your chart.
2. Use your **length (cm)** column to **rank** your objects:
	* Line them up **from shortest to longest**.
3. If two items are the same length, place them side by side.

**Analyze & Record:**

Answer the following questions:

* Which object is the longest? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Which is the shortest? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Did any two objects have the same length? ☐ Yes ☐ No

If yes, which ones? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* What surprised you about your measurements or sorting?
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Standards Alignment

NGSS: 2-PS1-1 STEL: STEL 3A, STEL 4A, STEL 8A, STEL 11A CCSS: CCSS.MATH.CONTENT.2.MD.A.1, CCSS.MATH.CONTENT.2.MD.A.2, CCSS.MATH.CONTENT.2.MD.D.10, CCSS.MATH.PRACTICE.MP5, CCSS.MATH.PRACTICE.MP6