

Body Measurement Benchmarks Activity

Note: Facilitator must know some body measurement benchmarks of his/her own and be able to fairly accurately use that benchmark to draw a line of a determined length.

Materials: Chart paper or a white board, rulers and tape measures with inches and centimeters, construction paper and strips of butcher paper, tape

1. Capture the attention of the participants by going to a chart or white board and writing a length such as 4 in. and proceeding to draw a line of that length using your body measurement benchmark.
2. Repeat this with other standard and metric measurements such as 1 inch, 1 cm, 2 inches, 1 dm (the same length as 4 in.), 6 inches etc.
3. Have one participant use a ruler and draw a line under your estimates of the actual lengths. Discuss how closely you were able to estimate and how the benchmarks helped you. (The idea is that they are to be amazed at how accurate your estimates were.)
4. Tell them that by the end of this lesson you will ask them to show you the measurements on the chart and they should be able to use a body measurement benchmark to help them draw those lengths. (Note that with students this should be broken into a two day lesson. One lesson should be about standard units only. The other lesson should be about metric units only.)
5. Students use rulers with inches and centimeter markings to find their own benchmarks. Do as many as possible on their hands because that will make it easier to hold up to the paper and draw their lines. They should be measuring the distance between the natural lines and other marking on their hands that will always remain so they can accurately use this as a measuring tool that will work every time.

(Suggest finding the measure of things such as the width of their hand, the span of their fingers reaching as far as possible, the length of their pointer fingers placed together end to end, from their elbow to their wrist, from their elbow to the end of their pinky finger.)

6. Challenge them to find body measurement benchmarks for 1 foot, 1 yard, and 1 meter. Tell them that at the end of this lesson we will be having a contest. We will be competing to see who can most accurately cut a piece of paper to a given length. (With students I take the time to have them draw a hand and label all the body measurement benchmarks they can find on their hand. One day we draw the standard hand and the next day we draw the metric hand.)
7. Ask participants to move around the room using their body measurement benchmarks to estimate the lengths of various objects in the room. They should then check them with a ruler or tape measure

to see how close they were. Practice until most people seem to be fairly successful and pleased with their estimates.

8. Put participants in groups to form 4 or 5 teams, depending on the size of the group. Each group should have regular size paper and a long piece of paper such as register tape or strips of butcher paper. It helps to have each team's paper a different color. Teams can be identified as the color of their paper (the red team or the blue team, etc.)
9. Call out a length such as 1 dm. Have each team select a person who thinks they have a very accurate 1 dm benchmark. That person will cut a piece of paper to the length they think will be closest to 1 dm and bring it to the front of the class. The facilitator will tape them all up side by side and then use a ruler to draw a line 1 dm long beside them. The team who was the closest gets a point. This continues using different units of measure. End by having them see who can get closest to 1 meter (or 1 yd. on the standard measurement day.)
10. The winning team gets mints because they are the kings and queens of measure"ment."

Lesson extending and refining- Continue practicing using these body measurement benchmarks on a regular basis. When students are comfortable with using them ask questions that require them to compare units of measure in both systems such as, "Which is longer, a centimeter or an inch? A decimeter or 3 inches? How do you know?"