

Illustrative Mathematics

1.MD Measure Me!

Alignment 1: 1.MD.A.2

Not yet tagged

MATERIALS

- Student worksheet
- Unifix cubes
- Pencils
- Clip boards (optional)

ACTIONS

Students will work on the rug in pairs and measure each other. Student A starts with a worksheet:



and writes their name on top. Then they write their partner's name in the speech bubble where it says "I am _____". Student A measures Student B using the unifix cubes and records the length of Student B's arm, leg, foot, hand and neck in the corresponding boxes. Students should connect the unifix cubes to make a measuring stick from them as opposed to lining individual cubes up next to their partner.

Once Student A finishes, the partners switch and, using a second worksheet (or the reverse side if the teacher copies the worksheets so that they are double sided), Student B now measures Student A and records the values.

Once they are finished, the students return to the whole group where the teacher can ask,

Who has the longest leg, you or your partner?

The students should then stand side-by-side to verify that their measurements correctly identified the longest leg. If they don't, then students should re-measure their legs. It is easy for students to lose track while counting or to measure imprecisely. This would be a good opportunity for teachers to talk about how it is important to measure carefully in order to get accurate measurements.

Students who finish early can measure other objects in the classroom.

Commentary:

The purpose of this task is for students to measure something that interests them (namely themselves) by laying multiple copies of a shorter object that represents the length unit end to end. This task provides students an opportunity to discuss the need to be careful when measuring as it is very likely that some of them will get incorrect comparisons of their leg length with their partner's leg length.

With some body parts, it's not clear where to begin and end the measurements. This is a good opportunity to help the students think more precisely about how to define the "beginning and endings" more precisely. For example, on the hand, you could stick the thumb out and start where the thumb joins the wrist, and for the neck you could start at the top of the shoulder and go to the jaw or the beginning of the hair line. Of course, the measurements can't be more precise than a whole number of unifix cubes anyway, so there is inherent measurement error in this activity. The idea is for students to be as careful as possible while still understanding that it is not possible to get an exact measurement in any case.

Rather than bringing the students all together after they have found their measurements, the teacher could walk around as they work and ask the students to compare the lengths of their legs (or other body parts). Comparing leg lengths has the advantage that the legs are lined up at one end (as long as the students are standing) so it is easier to visually compare who has a longer leg. The unifix cube "measuring stick" can also be placed against the floor to help get more accurate measurements as well. If students have trouble deciding where their leg "ends" they can measure to the waist of their pants.

The fact that the starting and stopping point for these body parts is not exact works well with this standard as that ensures there is no need for fractional units. However, if the students' legs are very close to the same length, the teacher can help them think about whether one is a little over a whole number of units and one is just under, or if one is closer to the whole number below the measurement and one is closer to the whole number above. These kinds of conversations (if they come up) help students develop number sense in measurement contexts before they have the formal machinery of fractions.

Solution: 1

This is an example of Ileana measuring Javier:



Edit Tags



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