

Linear Measurement

Unit 4 Summary

Making Sense of Our Travels

In this lesson students will understand that length measurement is a distance traveled between two points. Students will also use partial units to measure.

You will need:

- Town Main Street Map (put down 6 eight inch units on butcher paper. Use clip art to add stops along the road at the whole and half units)
- Car for traveling
- Paper strips for folding (2-3 per student)
- Post-it Notes

Experience:

- Give students 2-3 strips of paper. We can call these a rainbow unit and they are all the same size. Ask students what was hard from the last unit when we measured the strips (hopefully they will bring up the half units). Ask: "What happened when the strip you were measuring did not end at the end of your unit?"
- Have students take a paper strip and ask them how we could split the unit exactly in half. Have students demonstrate how to make sure it is in half. Have them fold one of their strips into two parts that are not equal to show the difference between half and not half.
- Have students take their strip that is folded exactly in half and travel down the strip to the half mark. Ask them to indicate when they have reached the half mark. Students will struggle with naming the space vs. the point that is half. You can have them write the word half on their strip or you can introduce the notation of $\frac{1}{2}$.
- Use the Town Main Street Map to explore the idea of linear measurement as a distance traveled. Use Post-it Notes to label the map with the distances. Start with zero and label all the wholes and halves on the map. Have them travel to different places on the map and determine how far they have traveled.
 - Try changing up the zero point. Start at the stop that begins at the second unit and then travel to the stop at the fourth unit. Ask them how far they have traveled (2 units). Some may say four. Address this with the class and come to consensus.
 - Travel whole and half units on the map.
 - Try going from $2\frac{1}{2}$ to $4\frac{1}{2}$ and see how students reason about it.
 - Travel backwards and count the units. Will that work?
 - Travel from a half unit to a whole unit.

Extension: After discussion give pairs of students another unit. Have them work together to find the one fourth units on the strip and label it.