



Make the numbers tell it.

How do we turn measurements into a claim someone else can check?

Name _____ Period _____ Date _____

YOUR MISSION

Keep the units. Show the pattern. Explain what the evidence can support.

01 / PREDICT

Sketch how data could show that something is moving faster.



02 / LESSON 1

Compare stopwatch readings. Calculate, then question the unusual result.

03 / LESSON 2

Build a graph from a table. Point to evidence for a change.



04 / REVISE

Return to your first sketch. Add one idea you can now explain.

SKETCH YOUR FIRST IDEA

Draw your idea. Add a label or a question; being unsure is a useful start.

THREE WORDS TO USE

measurement

A number paired with a unit.

mean

The sum of the values divided by their count.

evidence

Observations or data used to support a claim.

OPTIONAL SCREEN STOP / PAPER WORKS ON ITS OWN

eleodes.com/measurement-graphing.html#average

Inspect the Time Trial Board. Compare its readings with Lesson 1.

READY TO TURN IN

☐ Both lesson pages complete; graph labeled; one revision added to this organizer.



Which number can we trust?

Use the supplied practice data. You do not need a stopwatch or a device.

Name _____ Period _____ Date _____

1 Notice before calculating

Five observers time the SAME crossing. Circle the reading that stands out.

Observer A	Observer B	Observer C	Observer D	Observer E
4.8 s	5.0 s	4.9 s	8.0 s	5.3 s

Predict: Will including 8.0 s make the mean larger or smaller? Why?

2 Calculate, then compare

Mean = sum / count. Range = largest - smallest. Keep the units.

MEAN / ALL FIVE READINGS

RANGE / ALL FIVE READINGS

Now find the mean of A, B, C and E only. Show your work.

3 Defend the record

Should we erase D just because it differs? Explain one thing to check first.

EXIT: Similar readings show agreement. Do they prove accuracy? Explain aloud to a partner.



Build a graph. Tell the story.

A model cart travels forward along a straight track. These are invented practice data.

Name _____

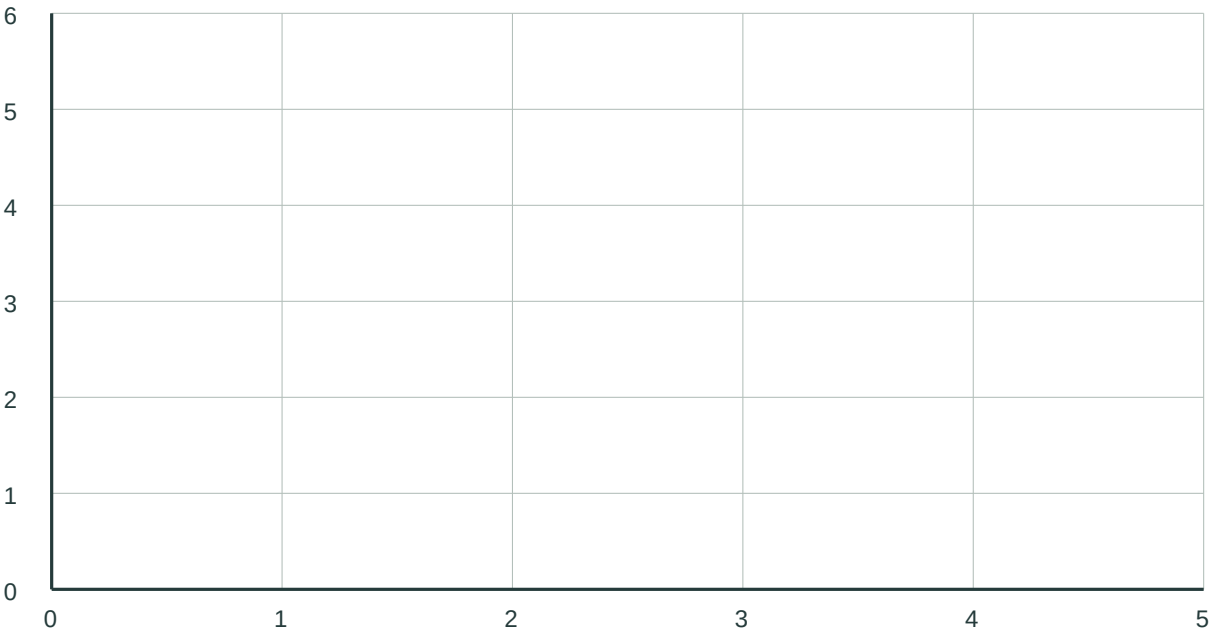
Period _____

Date _____

Time (s)	0	1	2	3	4	5
Position (m)	0	1	2	2	4	6

1. Add a title and axis labels with units. Use $x = \text{time}$ and $y = \text{position}$. Plot all six points, then connect them to model the motion between observations.

Title: _____



2. During which interval did the cart stop? Cite two table values.

3. Compare 0-1 s with 4-5 s. Which interval is faster? Use numbers.
