

Garden Tool Detectives

Choose tools carefully, measure clearly, and compare evidence.

3.1.D "use tools, including hand lenses; metric rulers; Celsius thermometers; wind vanes; rain gauges; graduated cylinders; beakers; digital scales; hot plates; meter sticks; magnets; notebooks; Sun, Earth, Moon system models; timing devices..."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each tool name in the passage. Circle words that tell what the students measured, recorded, or compared.

A Garden Moisture Check

- ① Third graders studied which part of a school garden stayed damp after a light rain. They chose two spots, one under a bush and one beside a sunny path. First, they used a rain gauge to measure the rainwater. Then they used a metric ruler to measure the depth of wet soil in each spot. They wrote every measurement in notebooks.
- ② Next, the class placed equal dry soil samples from both spots into labeled beakers. They used a digital scale to find each sample's mass. A Celsius thermometer showed that the sunny path was warmer at noon. The students did not touch tools that could be hot or breakable. They compared their notes to look for a link between warmth and soil moisture.
- ③ The notes showed that the soil under the bush was wetter than the soil beside the path. The class could not tell from one check that warmth alone caused the difference. Shade, wind, and plant roots might matter too. They planned to measure again after the next rain. Repeating careful measurements would give them more information before they made a stronger claim.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Which tool measured the rainwater, and which tool measured the depth of wet soil?

2 What information did the digital scale help the students find?

3 What did the Celsius thermometer show about the sunny path at noon?

4 What did the students learn from their notes, and what could they not yet prove?

3 YOUR TURN _____ Your own words

Plan a bird-feeder observation to find out whether more birds visit in the morning or afternoon. Write three sentences that name two tools, tell what data each tool helps you collect, and explain how you will compare the data fairly.

PART 1 • READ AND MARK

Underline each tool name in the passage. Circle words that tell what the students measured, recorded, or compared. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Which tool measured the rainwater, and which tool measured the depth of wet soil?	A rain gauge measured the rainwater. A metric ruler measured the depth of wet soil.
2	What information did the digital scale help the students find?	It helped them find the mass of each dry soil sample.
3	What did the Celsius thermometer show about the sunny path at noon?	The sunny path was warmer at noon.
4	What did the students learn from their notes, and what could they not yet prove?	They learned that the soil under the bush was wetter. They could not prove that warmth alone caused the difference.

PART 3 • YOUR TURN (SAMPLE ANSWER)

I will use a timing device to watch the feeder for 10 minutes in the morning and 10 minutes in the afternoon. I will use a notebook to record the number of birds I see in each time period. I will compare the two counts after observing on the same kind of day.

Accept equivalent tool uses and accurate descriptions from the passage. For Part 3, accept a reasonable plan with two named tools, data each tool collects, equal observation times, and a stated comparison.