Maya's Garden Study

Read a model research plan and track how it changes.

4.13.B "develop and follow a research plan with adult assistance;"

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Number the steps Maya will follow in order, and circle every place an adult helps her make or revise the plan.

Maya's Garden Study

1. After noticing that bees visited some flowers in the school garden more than others, Maya chose a research question: Which garden flowers do bees visit most during the morning? Her teacher helped Maya make the question narrow enough to study. Together, they decided to observe the garden for five school days, from 9:00 to 9:15 each morning. Maya wrote the question and dates in her notebook.

2. Before observing, Maya made a plan with her teacher. Maya would use a chart with the names of four flower types, a clock, and a pencil. She would stand on the path instead of touching the plants or insects. For each bee she saw land on a flower, she would make one tally mark in the matching chart row. Her teacher would check the chart directions before the first observation.

3. At the end of each day, Maya added that day's tallies carefully. If she was unsure whether an insect was a bee, she did not count it and wrote a note. On Wednesday, steady rain meant Maya could not observe bees, so Maya and her teacher changed the plan. They added one extra dry morning. After the observations, Maya would total each row, make a bar graph, and use the results to answer her question.

2 ANSWER WITH EVIDENCE

Use the passage

1. What was Maya's research question, and how did her teacher help her with it?

2. What three tools did Maya plan to use during her observations?

3. What did Maya plan to do each time she saw a bee land on a flower?

4. Why did Maya revise her plan, and what change did she make?

3 YOUR TURN

Your own words

Choose a question about something you can observe at school. Write a three-sentence research plan that states your question, tells what data you will collect and when, and explains one way an adult will help you check or revise the plan. Review your plan with an adult. With that adult's help, actually carry out one feasible observation step and record your data. After your three-sentence plan, write a completed-step record: what you did, what you found, how the adult helped, and whether you kept or changed the plan. Use extra paper if needed.

ANSWER KEY

Maya's Garden Study

GRADE 4 · TEKS 4.13.B

PART 1 · READ AND MARK

Number the steps Maya will follow in order, and circle every place an adult helps her make or revise the plan. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What was Maya's research question, and how did her teacher help her with it?	**Maya asked which garden flowers bees visit most during the morning. Her teacher helped make the question narrow enough to study.**
2	What three tools did Maya plan to use during her observations?	**A chart with four flower types, a clock, and a pencil.**
3	What did Maya plan to do each time she saw a bee land on a flower?	**She would make one tally mark in the matching row of her chart.**
4	Why did Maya revise her plan, and what change did she make?	**Steady rain prevented an observation on Wednesday, so she and her teacher added one extra dry morning.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

My question is, Which birds visit the playground trees during lunch? For four days, I will stand at the edge of the playground for ten minutes and tally each bird I see in a chart. Before I begin, my teacher will check my chart and help me change the plan if playground noise makes it hard to observe birds.

Fictional completed-step example: My teacher checked the chart. We observed for ten minutes and recorded three birds. The chart worked, so we kept the plan for the next observation.

Accept plans with an observable question, a specific time or number of observations, a clear way to record data, and a realistic adult role. The adult may help narrow the question, check materials or directions, support safe observation, or help revise the plan. Before the task, arrange a feasible observation, materials and adult assistance. Require actual adult plan review and one performed step with recorded data; assess the completed-step record separately from the three-sentence plan. Do not require the whole multi-day project or a change when the plan works.