

Change It, Wonder

Find questions that test one changed variable.

3.1.a.ii "asking questions and defining problems ask questions about what would happen if a variable is changed"

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each question that asks what would happen if something changes, then circle the words that name the variable being changed.

Bean Seedling Questions

- ① Ms. Chen's class grew bean seedlings in matching cups. Each cup had the same kind of seed, the same soil, and the same amount of water. The class put some cups near a sunny window and some under a lamp for fewer hours each day. The students watched for one week and measured each plant with a ruler on Friday morning.
- ② Mia wrote, "What would happen to the seedlings' height if they got more hours of light each day?" Her question changes one thing, hours of light. It asks about a result, seedling height. Jordan wrote, "What would happen if each cup received more water?" He planned to keep the seeds, soil, and light schedule the same.
- ③ The class noticed that a fair test changes only one variable at a time. If water and light both changed, students could not tell which change affected the plants. They made another question for a new test: "What would happen to the number of leaves if the soil type changed?" They would keep the water amount and light hours the same.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What variable does Mia's question propose changing?

2 What result does Mia want to observe?

3 Jordan's question proposes giving each cup more water. Name two things he plans to keep the same.

4 Why should water and light not both change in the same fair test?

3 YOUR TURN _____ Your own words

Choose a safe object or living thing to test. Write a question that asks what would happen if you changed one variable, then name the variable, the result you would observe or measure, and two things you would keep the same.

PART 1 • READ AND MARK

Underline each question that asks what would happen if something changes, then circle the words that name the variable being changed. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What variable does Mia's question propose changing?	The number of hours of light each day.
2	What result does Mia want to observe?	The height of the bean seedlings.
3	Jordan's question proposes giving each cup more water. Name two things he plans to keep the same.	Any two: the seeds, the soil, and the light schedule.
4	Why should water and light not both change in the same fair test?	The students would not know which change affected the plants.

PART 3 • YOUR TURN (SAMPLE ANSWER)

I will test paper airplanes. What would happen to flight distance if the wings were wider? I will change wing width and measure flight distance. I will keep the paper type and the person throwing the airplane the same.

Accept any safe, testable question that asks what would happen if one variable changes. The response should identify one changed variable, an observable result, and two reasonable conditions held the same.