Mold Under Study

Use observations to explain how fungi grow

L.6.4.3 "Analyze and interpret data from observations to describe how fungi obtain energy and respond to stimuli (e.g., bread mold, rotting plant material)."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the sentence explaining how fungi obtain energy, then circle the two mold counts you would compare to test a response to moisture.

What Helps Bread Mold Grow?

1. Mold is a fungus that can grow on bread. Unlike green plants, fungi do not make their own food using sunlight. They release enzymes onto nearby material. The enzymes break down food into smaller pieces that the fungus absorbs for energy. A mold spore may begin growing when it lands where food and suitable conditions are present.

2. A class prepared four sets of ten sealed bags. Each held either a bread square from one loaf or clean glass, with the same number of mold spores added. All bags stayed at the same temperature for six days. The class changed water and light conditions as shown, then counted bags with visible mold.

VISIBLE MOLD AFTER SIX DAYS

Surface	Water	Light	Bags with visible mold (out of 10)
Bread	Damp	Light	9
Bread	Dry	Light	2
Glass	Damp	Light	0
Bread	Damp	Dark	8

3. A bag with visible mold counts as one, whether it has one patch or several. A bag without visible mold might still contain spores too small to see. Because the bags stayed closed, the class did not test exactly how much food the fungus absorbed. The counts show patterns of visible growth under different conditions.

2 ANSWER WITH EVIDENCE

Use the passage

1. Compare the damp and dry bread bags kept in light. What do the counts suggest about how mold responds to moisture?

2. Compare the damp bread and damp glass bags kept in light. How do their results support the idea that fungi obtain energy from food?

3. A student claims that bread mold needs light to grow. Which two rows challenge this claim, and why?

4. Do the zero visible mold bags on damp glass prove that no spores were present there? Explain using the passage.

3 YOUR TURN

Your own words

Plan a sealed-container study using fallen leaves to test whether a fungus responds to moisture or light. In three or four sentences, state what you would change, name two things you would keep the same, say what you would count, and predict a result using one comparison from the table.

ANSWER KEY

Mold Under Study

GRADE 6 · L.6.4.3

PART 1 · READ AND MARK

Underline the sentence explaining how fungi obtain energy, then circle the two mold counts you would compare to test a response to moisture. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Compare the damp and dry bread bags kept in light. What do the counts suggest about how mold responds to moisture?	**Visible mold grew in 9 damp bread bags but only 2 dry bread bags, suggesting that moisture helps mold grow.**
2	Compare the damp bread and damp glass bags kept in light. How do their results support the idea that fungi obtain energy from food?	**Nine bread bags had visible mold, while no glass bags did. Both were damp and kept in light, but bread provided food that the fungus could break down and absorb.**
3	A student claims that bread mold needs light to grow. Which two rows challenge this claim, and why?	**The damp bread bags in light and dark challenge it. Nine light bags and eight dark bags had visible mold, so mold grew without light.**
4	Do the zero visible mold bags on damp glass prove that no spores were present there? Explain using the passage.	**No. The class added spores to every bag, and spores can be too small to see even when no mold is visible.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I would put equal amounts of fallen leaves from the same pile in ten damp and ten dry sealed containers. I would keep the light and temperature the same and count containers with visible mold after six days without opening them. I predict more damp containers would show mold because nine damp bread bags showed mold, compared with two dry bread bags.

Accept predictions based on either moisture or light if the student changes only that factor and uses the matching table comparison. The plan should keep at least two other conditions the same and count visible growth without opening the containers.