



Science Toolkit: Grade 8 Objective 1.A.1.e

Student Handout: Science: Grade 8 Objective 1.A.1.e

Standard 1.0 Skills and Processes

Topic A. Constructing Knowledge

Indicator 1. Design, analyze, or carry out simple investigations and formulate appropriate conclusions based on data obtained or provided.

Objective e. Explain that if more than one variable changes at the same time in an investigation, the outcome of the investigation may not be clearly attributable to any one of the variables.

Selected Response (SR) Item

Question

Students conducted an investigation to determine if mold grows on only certain types of bread. The students dripped water on four types of bread and covered the damp bread with plastic wrap. Each piece of bread was placed in a different dark area. The data table below shows the information the students collected after four days.

BREAD MOLD GROWTH

Type of Bread	Water (milliliters)	Temperature (°Celsius)	Presence of Mold
Rye	5	1	No
Sourdough	5	22	Yes
White	5	24	Yes
Wheat	5	40	Yes

Which of these changes should the students make to their investigation to develop a valid conclusion?

- A. Use only two types of bread.
- B. Drip more water on each piece of bread.
- C. Keep all the bread at the same temperature.
- D. Place some of the pieces of bread in a lighted area.

Correct Answer

- C. Keep all the bread at the same temperature.

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