

Name: _____ Date: _____

Outsmart the Lab: A 5th Grade Safety Mystery Quiz

Students apply analytical reasoning to recognize equipment hazards and justify emergency responses in a simulated laboratory environment.

1. You notice a small crack in the bottom of a glass beaker before starting an experiment involving a heat lamp. What is the most scientific reason for replacing it?

- A. The crack will make the liquid evaporate faster.
- B. Thermal expansion could cause the beaker to shatter when heated.
- C. Glassware is too expensive to use if it is not perfect.
- D. The crack will change the weight of the chemicals inside.

2. Instead of sniffing a chemical directly, a student should use a hand motion to bring the scent toward their nose, a technique called _____.

- A. Fanning
- B. Wafting
- C. Sweeping
- D. Drafting

3. True or False: If you accidentally spill a benign substance like table salt during an investigation, you should clean it up immediately before telling the teacher.

- A. True
- B. False

4. While observing a chemical reaction, your partner's sleeve catches on a ring stand. Why is organized personal space considered a safety requirement?

- A. It makes the lab look professional for visitors.
- B. Clean desks prevent students from losing their pencils.
- C. Clutter increases the risk of cross-contamination and tripping hazards.
- D. The teacher gives better grades for tidy workstations.

5. A student is moving a heavy microscope across the lab. They should carry it with one hand on the 'arm' and the other hand supporting the _____.

- A. Stage
- B. Eyepiece
- C. Base
- D. Lens

6. If a substance splashes into your eyes, how long must you continue to rinse them at the eyewash station?

- A. 30 seconds

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- B. Until the stinging stops
- C. At least 15 to 20 minutes
- D. 5 minutes

7. True or False: Long hair should be tied back during a lab only if you are working with an open flame.

- A. True
- B. False

8. Why is it strictly forbidden to eat or drink in the science laboratory, even if you are not currently using chemicals?

- A. Crumbs might attract insects to the classroom.
- B. Surfaces may have invisible chemical residues from previous experiments.
- C. It distracts other students from their analytical work.
- D. Food items can react with the oxygen in the lab air.

9. Identify the piece of safety equipment used to extinguish a fire that has started on a person's clothing: the _____.

- A. Fire Extinguisher
- B. Fire Blanket
- C. Spill Kit
- D. First Aid Kit

10. True or False: Used chemicals should always be poured down the sink with plenty of water unless the teacher says otherwise.

- A. True
- B. False