

Name: _____ Date: _____

Think You're Safe? Your Freshman Lab Survival Challenge

Navigate real-world laboratory scenarios and identify essential safety protocols to ensure a hazard-free workspace during high school science experiments.

1. A fellow student is using a Bunsen burner and their lab notebook catches fire. What is the most appropriate immediate action for you to take?

- A. Run to the hallway and pull the building fire alarm immediately.
- B. Alert the instructor and use a fire extinguisher or fire blanket if directed.
- C. Pour your beaker of water onto the notebook to extinguish the flames.
- D. Try to blow the fire out quickly before it spreads to other desks.

2. True or False: Because long hair is flammable and can interfere with experiments, it must be tied back before entering the active lab zone.

- A. True
- B. False

3. When diluting a concentrated acid, you should always add the _____ to the _____ to prevent the solution from splashing or boiling over.

- A. water; acid
- B. base; acid
- C. acid; water
- D. solvent; solute

4. Which of these is the correct way to smell a chemical substance if instructed by your teacher to observe its odor?

- A. Inhale deeply with your nose directly over the container.
- B. Use a pipette to drop a small amount on your hand and sniff.
- C. Waft the vapors toward your nose using a circular motion of your hand.
- D. Heat the chemical first to increase its volatility before smelling.

5. True or False: If you get a chemical in your eye, you should rinse it at the eyewash station for a minimum of 20 minutes.

- A. True
- B. False

6. You notice a small crack in the bottom of a glass test tube you are about to heat. What is the correct procedure?

- A. Wrap the crack in heat-resistant tape and proceed with the experiment.
- B. Use the test tube anyway but hold it further away from your face.
- C. Heat it slowly to see if the crack expands before adding chemicals.

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D. Dispose of it in the designated glass waste container and get a new one.

7. Before leaving the lab for the day, the very last thing every student must do to prevent cross-contamination is _____.

- A. dry their lab bench
- B. wash their hands
- C. turn off the lights
- D. stack their stools

8. While working with an unknown clear liquid, you accidentally spill some on your lab bench. What should you do first?

- A. Wipe it up quickly with paper towels to hide the mess.
- B. Neutralize it with a strong base immediately.
- C. Inform your teacher to identify the substance and proper cleanup method.
- D. Leave it to evaporate so you don't have to touch it.

9. True or False: Safety goggles are only required when you are personally handling chemicals, not when you are just observing a partner.

- A. True
- B. False

10. If a piece of electrical equipment has a _____ cord, you should not plug it in as it poses a significant shock or fire risk.

- A. shortened
- B. frayed
- C. coiled
- D. colored