

Science Safety Lab Quiz Questions and Answers PDF

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Describe the steps you would take if you witnessed a small fire starting in the lab.

Alert others, use a fire extinguisher if trained, evacuate if necessary, and notify emergency services.

What are the potential consequences of not wearing appropriate PPE in the lab?

Increased risk of injury, exposure to hazardous substances, and potential legal or disciplinary actions.

What should you do first if a chemical spill occurs on your skin?

- Wipe it off with a cloth
- Ignore it
- Rinse immediately with water** ✓
- Apply ointment

In the event of a chemical spill on your skin, the first step is to immediately rinse the affected area with copious amounts of water to dilute and remove the chemical. This should be done for at least 15 minutes, and you should seek medical attention if necessary.

Discuss the importance of proper waste disposal in maintaining a safe laboratory environment.

Prevents contamination, reduces health risks, and ensures compliance with environmental regulations.

How would you conduct a risk assessment for a new experiment involving volatile chemicals?

Identify hazards, evaluate risks, implement control measures, and review procedures regularly.

Why is it important to report near misses and unsafe conditions in the lab, even if no one is injured?

Helps prevent future incidents, improves safety protocols, and fosters a culture of safety awareness.

Explain why it is important to read the Safety Data Sheet (SDS) before using a chemical.

It provides critical information on handling, hazards, and emergency measures related to the chemical.

What are the correct steps for donning PPE? (Select all that apply)

- Put on gloves before lab coat
- Wear goggles before gloves ✓
- Ensure lab coat is buttoned ✓
- Wear open-toe shoes

The correct steps for donning PPE include performing hand hygiene, putting on the gown, followed by the mask or respirator, eye protection, and finally gloves. It is essential to follow this order to ensure maximum protection against contaminants.

Which of the following are considered safe practices when handling chemicals? (Select all that apply)

- Smelling chemicals directly
- Wearing gloves ✓
- Reading the SDS ✓
- Mixing chemicals without supervision

Safe practices when handling chemicals include wearing appropriate personal protective equipment (PPE), working in a well-ventilated area, and following proper storage and disposal guidelines.

Which items should be disposed of in a biohazard waste container? (Select all that apply)

- Used gloves ✓

- Broken glass
- Contaminated pipette tips ✓**
- Paper towels

Biohazard waste containers are designated for items that pose a risk of infection or contamination. This includes items such as used needles, blood-soaked materials, and any other items contaminated with bodily fluids.

What is the first step in using a fire extinguisher?

- Aim at the base of the fire
- Pull the pin ✓**
- Squeeze the handle
- Sweep side to side

The first step in using a fire extinguisher is to pull the pin at the top of the extinguisher to unlock it. This action allows you to operate the extinguisher effectively.

Which action should you take if you break glassware in the lab?

- Sweep it up with your hands
- Notify the instructor and use a broom and dustpan ✓**
- Leave it for someone else to clean
- Kick it under the table

If you break glassware in the lab, you should immediately notify your instructor or lab supervisor and follow the proper cleanup procedures to ensure safety.

What type of shoes should be worn in the lab?

- Open-toe sandals
- High heels
- Closed-toe shoes ✓**
- Flip-flops

In the lab, it is essential to wear closed-toe shoes that provide adequate protection and support. This helps prevent injuries from spills, dropped equipment, and other hazards.

Which of the following is NOT considered personal protective equipment (PPE)?

- Lab coat

- Safety goggles
- Sandals ✓
- Gloves

Personal protective equipment (PPE) includes items like gloves, masks, and goggles that protect individuals from hazards. Items such as regular clothing or accessories are not considered PPE.

Which piece of equipment is used to measure liquid volume accurately?

- Beaker
- Bunsen burner
- Graduated cylinder ✓
- Test tube

A graduated cylinder is the most accurate piece of equipment for measuring liquid volume. It allows for precise readings due to its marked scale and narrow shape.

Which of the following are essential components of a chemical label? (Select all that apply)

- Chemical name ✓
- Hazard symbols ✓
- Expiry date
- Manufacturer's contact information ✓

Essential components of a chemical label typically include the product name, hazard symbols, signal words, and precautionary statements. These elements provide critical information for safe handling and use of the chemical.

Which actions should be taken during a lab evacuation? (Select all that apply)

- Turn off all equipment ✓
- Run to the nearest exit
- Follow the evacuation route ✓
- Gather personal belongings

During a lab evacuation, it is crucial to follow established safety protocols, which include shutting down equipment, securing hazardous materials, and following the designated evacuation route to ensure everyone's safety.

What are the benefits of participating in safety drills? (Select all that apply)

- Familiarity with emergency procedures ✓**
- Increased panic during real emergencies
- Improved response time ✓**
- Knowledge of evacuation routes ✓**

Participating in safety drills enhances preparedness, improves response times, and fosters teamwork among participants. It also helps identify potential hazards and areas for improvement in safety protocols.

What is the primary purpose of wearing goggles in the lab?

- To improve vision
- To protect eyes from chemical splashes ✓**
- To look professional
- To shield from bright lights

Wearing goggles in the lab is essential for protecting the eyes from harmful chemicals, flying debris, and other potential hazards. This safety measure helps prevent injuries and ensures a safer working environment.

Which symbol indicates a biohazard?

- Skull and crossbones
- Flame
- Three interlocking circles ✓**
- Exclamation mark

The biohazard symbol is a distinctive design featuring three interlocking circles, often colored in black and yellow or orange. It is used to indicate the presence of biological substances that pose a threat to human health or the environment.