

**Department of biology**

**((Invertebrates))**

**2 stage**

**Lab 4**

**Security precautions and safety tools in the laboratory**

**By**

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**Security precautions and safety tools in the laboratory**

Laboratory safety is crucial, especially when dealing with sensitive chemicals and equipment. Therefore, we must be fully aware of the tools necessary for protection and prevention. In this article, we'll explore some of the most important laboratory safety equipment, from protective clothing to work surfaces used in chemical experiments.

Security precautions and safety tools in the laboratory are considered essential factors, as they aim to protect the health and safety of its workers and the sensitive equipment used. To ensure that these precautions are applied effectively, the necessary tools and means must be provided and used.

There should be containers to store hazardous chemicals in a safe and tightly closed manner. Gloves, goggles, and masks must also be provided to workers to limit exposure to chemical and biological hazards.

In addition, the laboratory must be equipped with emergency equipment and safety tools in the laboratory, such as fire extinguishers and fire extinguisher cylinders, to respond to any fire-related emergency. Also, there should be awareness signs containing instructions and warnings necessary for safe handling in the laboratory. In general, laboratory workers must follow safety procedures and properly use the protective equipment provided to maintain their safety and avoid potential accidents.

. You must also ensure that there is an emergency shower in the laboratory for use in the event of spills or contamination. It is also recommended to design and arrange the laboratory in a way that provides good ventilation and proper ventilation to prevent the accumulation of harmful gases or toxic chemicals. We must also work in accordance with safety instructions issued by the competent authorities and follow the necessary procedures to dispose of chemical waste in a correct and safe manner. Precautions and safety tools are of great importance to protect workers and ensure public safety.

**Types of laboratory safety tools you need**

the security and safety precautions in the laboratory

1-The student is not allowed to enter the laboratory without presenting the card.

2- Food and drink are not allowed inside the laboratories.

3- The lights and windows must be closed before leaving the study areas. 4-The place must be left clean and tidy.

Appropriate protective equipment for laboratory technician

At the forefront of the protective clothing that should be available for science laboratories: a laboratory jacket to protect the clothes and body, gloves to protect the hands, goggles to protect the eyes, and masks to protect the face and respiratory system. Below is a breakdown of the use of each

Safety precautions that must be followed when using chemicals

Protective clothing must be worn before using chemicals.1

Absolutely not smoking, eating or drinking inside the laboratory.2

Explosive materials must be stored away from sources of flame or places with high temperatures, and must not be directly exposed to sunlight or falling.