

TD1: Creating a technical lab sheet

A technical sheet for a practical session must be created on a cardboard sheet, inspired by handouts, and should consist of the following sections:

1-The aim of the practical session

The aim is to define the objectives of the practical session by answering the following question: why are we conducting this practical session?

Example: For the Cellular Biology lab on plant cells, we create a microscopic preparation of the internal epidermis of an onion scale to demonstrate that all living beings are composed of cells, and that the cell is the fundamental unit of a living organism. The aim is to identify the main parts of a cell and learn how to prepare and observe it under an optical microscope.

2-TP Principle

Determine what the TP is based on.

Example: For the Practical Session in Cellular Biology focusing on plant cells, we prepare a microscopic slide of the internal epidermis of an onion scale without staining, and utilize dyes like methylene blue for nucleus determination and neutral red for vacuole.

3-Used Material

Determine the necessary equipment for the practical session.

Example: for the Plant Cell Biology practical session, the equipment is as follows:

- Slides
- Coverslips
- Scalpels
- Tweezers
- Optical microscope

4-Reagents Used

Identify the reagents needed for the practical session.

Example: for the Plant Cell Biology practical session, the reagents are as follows:

-Distilled water

-Methylene blue

-Neutral red

5-Operating Procedure

Involves determining the main steps used to carry out the practical work.

Example: for the Plant Cell Biology practical session, the operating procedure is as follows:

- Cut a small fragment of the inner epidermis of an onion scale using a scalpel.
- Place this fragment on a glass slide.
- Add a drop of water, methylene blue, or neutral red.
- Place a coverslip over the preparation.
- Remove air bubbles by pressing on the preparation.
- Observe under an optical microscope at magnifications of x4, x10, x40.
- Draw the microscopic observation.