MICROSCOPE

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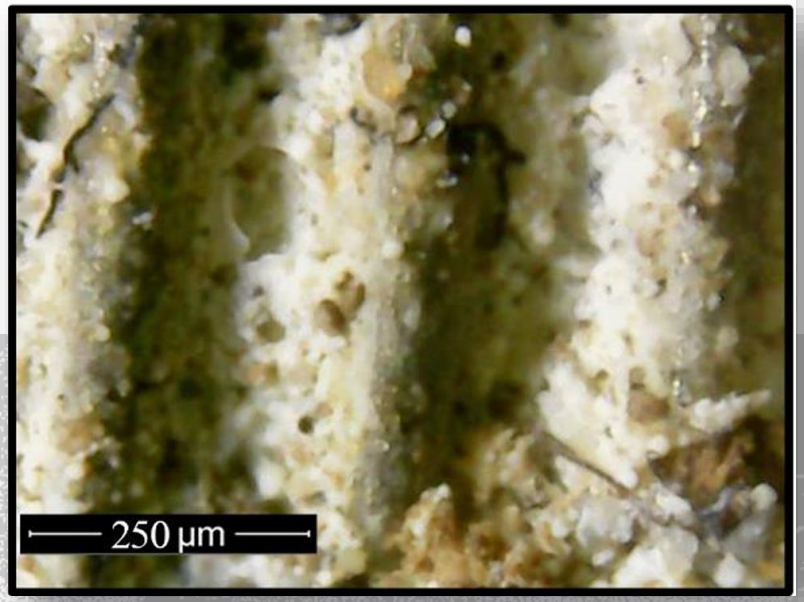
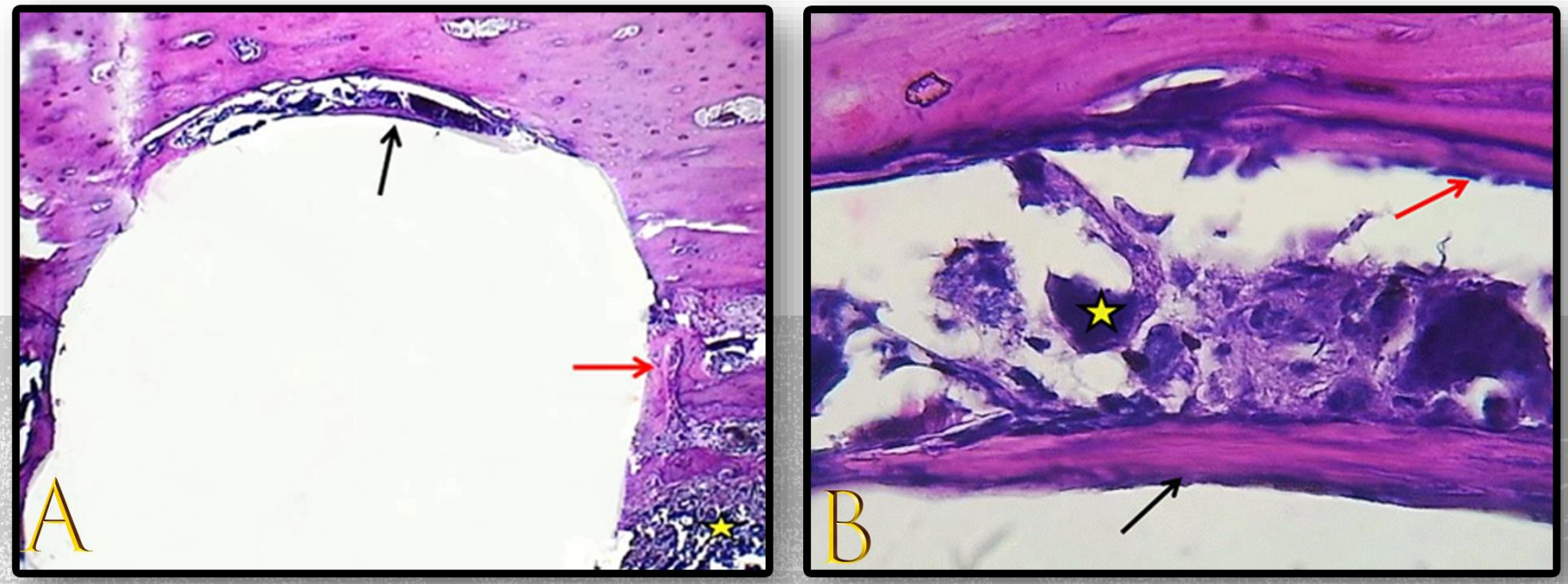
WHAT IS MICROSCOPE?

Microscopes are instruments that are used in science laboratories, to visualize very minute objects such as cells, microorganisms, giving a contrasting image, that is magnified. Microscopes are made up of lenses for magnification, each with its own magnification powers. Depending on the type of lens, it will magnify the specimen according to its focal strength.



WHAT IS MICROSCOPE?

Their ability to function is because they have been constructed with special components that enable them to achieve high magnification levels. they can view very small specimens and distinguish their structural differences, for example, the view of animal and plant cells, viewing of microscopic bacterial cells.



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Microscopes are generally made up of structural parts for holding and supporting the microscope and its components and the optical parts which are used for magnification and viewing of the specimen images. This description defines the parts of a microscope and the functions they perform to enable the visualization of specimens.

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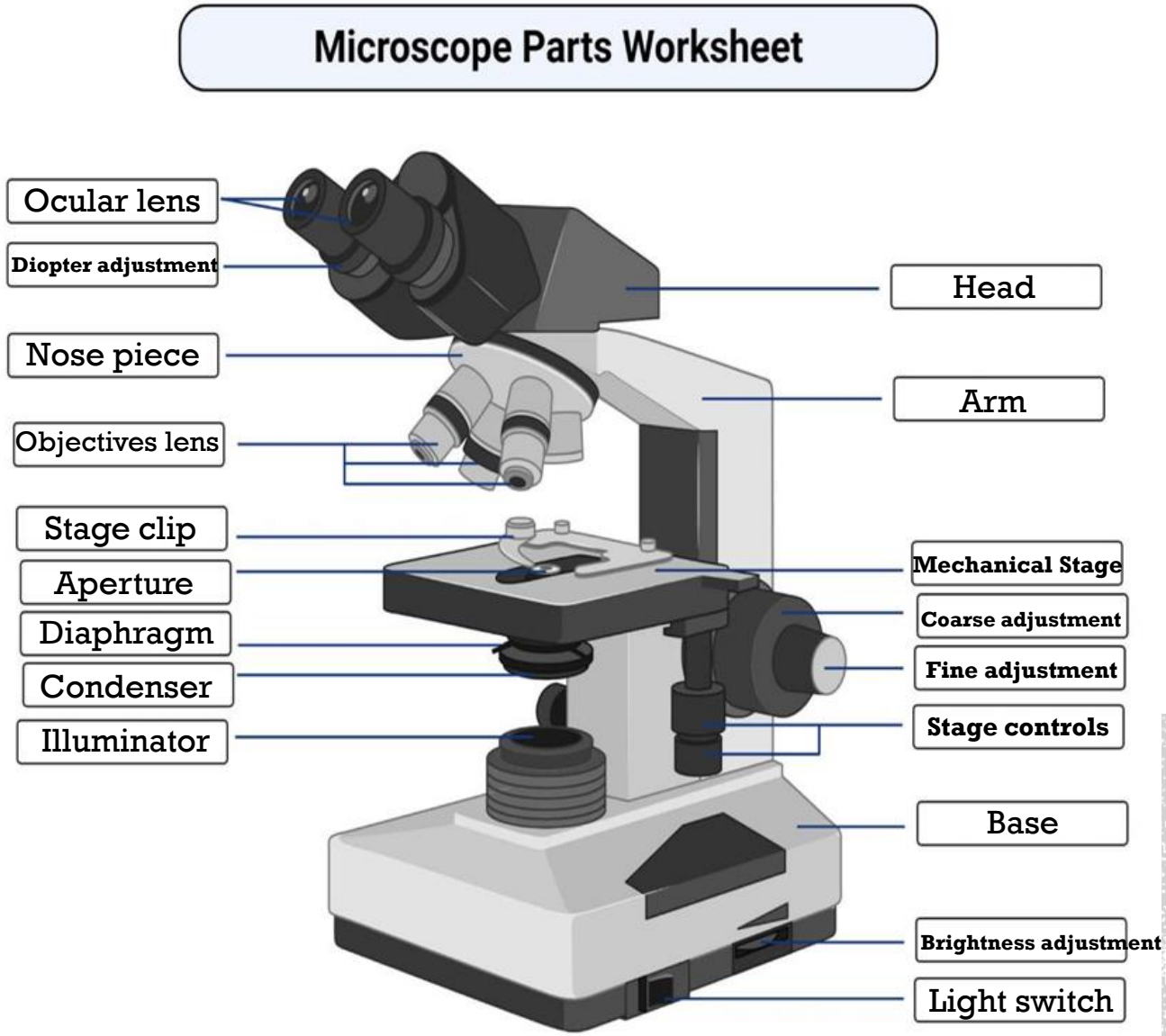

MAIN MICROSCOPE COMPONENTS

Eyepiece (Ocular Lens): The lens that look through it to observe the specimen. It typically magnifies the image 10x.

Objective Lenses: Located on a rotating turret (nosepiece), these lenses provide additional magnification and are usually available in various powers, such as 4x, 10x, 40x, and 100x.

Stage Clip: Metal clips on the microscope stage that securely hold the slide in place during observation, ensuring the specimen remains stable for accurate viewing.

Stage: The flat platform where the slides that placed. It can be adjusted vertically and horizontally.

MAIN MICROSCOPE COMPONENTS

Illumination Source: A light source located beneath the stage (transmitted light), providing the necessary light to view the specimen.

Condenser: Located under the stage, it focuses the light from the illumination source onto the specimen.

Diaphragm: A component located under the stage, typically part of the condenser unit. It regulates the amount of light that reaches the specimen, improving contrast and resolution.

Aperture: Part of the diaphragm in a microscope, the aperture is an adjustable opening that controls the amount of light passing through the specimen.

MAIN MICROSCOPE COMPONENTS

Coarse Adjustment: This large knob moves the stage up and down quickly to bring the specimen into general focus.

Fine Adjustment: This smaller knob moves the stage up and down very slowly and precisely. It's used after the coarse adjustment to achieve a sharp image.

Stage Controls: These knobs allow for precise movement of the microscope stage in horizontal and vertical directions.


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