**Parts of Compound Microscope**

1. **Magnifying Parts or Optical Parts**

Magnifying Parts or Optical Parts are composed of the ground and polished lenses for the enlargement of the image and the objects under study. The magnifying parts of the microscope are:

1. **Objectives**
2. **Low Power Objectives (LPO)** is the shorter objective usually marked 4x to 10x, which is the magnifying power of the lens, and 16 mm the focal length. The working distance between the cover glass and the objective lens is 5 mm. this lens provides the general view of the specimen.
3. **High Power Objectives (HPO)** is usually marked 40x to 60x and 4 mm and with the working distance of 0.46 mm. it gives a more detailed view than the LPO.
4. **Oil Immersion Objective (OIO)** is found marked 97x to 100x and 1.6 mm and with the working distance 0f 0.13 mm.
5. **Eyepiece or Ocular** is found on the top of the microscope inserted into the tubular part called body tube. It further magnifies the image formed by the objectives and it is used in viewing the specimen.
6. **Illuminating Parts**
7. **Mirror** is composed of two reflecting surfaces, plane and concave which can be adjusted to any direction to gather and direct light to the specimen.
8. **Plane Mirror** is used when the source of light is artificial.
9. **Concave Mirror** is used when the source of light is natural.
10. **Condenser** is found beneath the stage and concentrates light on the object under study.
11. **Iris Diaphragm** is situated below the condenser and provided with a small lever which can be moved to regulate the amount of light.
12. **Mechanical Parts**

Mechanical Parts of the microscope consist of precise parts of metals to support and adjust the optical parts.

1. **Base** is heavy U, V, Y shaped foot that makes the microscope stand stable on any flat surface.
2. **Pillar** is a short piece of metal supporting the rest of the microscope.
3. **Arm or Handle** is a curved metal for holding the microscope.
4. **Inclination Joint** is a joint between the arm and pillar that allows possible titling of the upper part of the microscope.
5. **Body tube** is a tubular part attached to the body and bears the upper arm.
6. **Revolving or Rotating Nosepiece** is the structure that facilitates the changing of objectives in focus.
7. **Dust Shield** is a concave disc which protects the objective from dust.
8. **Stage** is a platform with central aperture for the passage of reflected light from mirror and where slides to be observed are placed.
9. **Clips** are gears for holding the slides securely in place.
10. **Mechanical Stage** replaces the clips and is used in manipulation of slide.
11. **Focusing Mechanism**
12. **Coarse Adjustment Knob** is a large knob attached on the arm to raise or lower the body tube when the low power objective is in focus.
13. **Fine Adjustment** Knob is a smaller knob also attached to the arm used for delicate focusing of the specimen under the high power object and oil immersion objectives.

Reference: Biology 100 Lab, Central Luzon State University, page 9-11.