



Name:	Due Date
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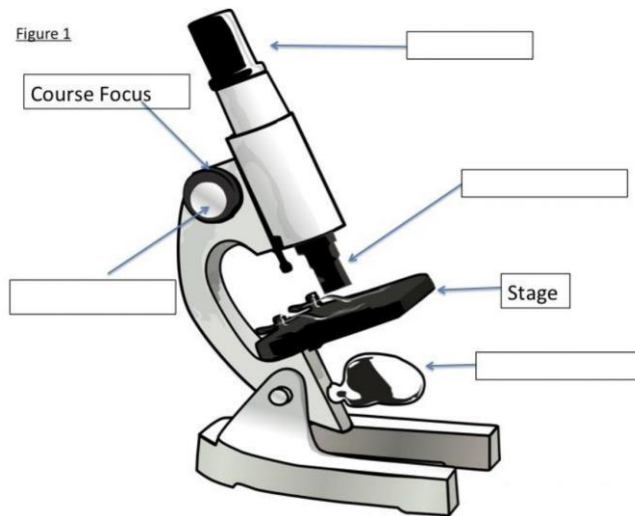
Scientific vocabulary	Definition
Microscope	An optical instrument used to magnify objects, so small details can be seen clearly.
Eyepiece Lens	The lens at the top of the microscope that you look through. The eyepiece is usually 10x or 15x power.
Stage	The flat platform where you place your slides. Stage clips hold the slides in place.
Objective Lens	Usually, you will find 3 or 4 objective lenses on a microscope. They consist of 4x, 10x, 40x and 100x powers. When coupled with a 10x eyepiece lens, we get total magnification of 40x (4x times 10x), 100x, 400x, and 1000x.
Fine adjustment	Used to adjust the focal point of the microscope and allow a clear image to be seen. Fine tunes the focus and increases the detail of the specimen.
Course adjustment	Used to adjust the focal point of the microscope and allow a clear image to be seen. Brings the specimen into general focus.
Illuminator	This is the microscopes light source, located at the base. In most light microscopes it is a bulb with adjustable brightness that shines through the specimen slide. Some use a mirror to direct sunlight through
Specimen	The object being examined. Most specimens are mounted on slides, flat rectangles of thin glass.
Iris Diaphragm	Adjusts the amount of light that reaches the specimen.

Questions:

- 1) Electron microscopes provide many advantages to scientists. Circle one **disadvantage** of electron microscopes listed below.
 - a. Higher magnification
 - b. Expensive
 - c. Lower resolution

HWK 7B1- Parts of the Microscope

The diagram below shows a light microscope. Complete the labels.



- 2) Calculate the actual size of an onion cell if it measures 20mm using a 100X magnification. Remember to show your calculation.

Length of cell =

- 3) What is the magnification if the image size is 5cm and the size of the real object is 0.2mm?

Magnification =