

# How to Use a Microscope

## **PREPARING TO USE YOUR MICROSCOPE**

1. Double-check that it was put away correctly (low power).
2. Plug it in. Turn on the light.
3. Secure slide to stage, ensuring that the specimen is illuminated.
4. Fix the focus:
  - Use the coarse adjustment knob to raise the stage all the way.
  - Turn the fine adjustment knob as far as it will go, then half-way (approximately 10 turns) back.

## **FOCUSING THE MICROSCOPE**

5. Look at the specimen with your naked eye. What colour and shape is it? Approximately how large is it? (This will help you avoid focusing on the wrong object.)
6. Double-check that your microscope is on low power.
7. Put your hand on the coarse adjustment knob and look through the eyepiece. Focus on the specimen with the coarse. (***Can't see it? Ask for help.***)
8. Center the specimen and adjust the diaphragm if necessary.
9. Switch to medium power. (***Do not go 'through' high power. Do not lower the stage before switching.***) You should see an enlarged, slightly blurry version of the specimen. Turn the **coarse adjustment knob slightly** (no more than half a turn) to focus on the specimen.
10. Switch to high power, watching to ensure that the lens does not hit anything. (***If you correctly completed all the other steps, the lens will not hit anything.***) You should see an enlarged, slightly blurry version of the specimen. Turn the **fine adjustment knob slightly** to focus on the specimen.

## **PUTTING AWAY THE MICROSCOPE**

- Set objective lens to low; wipe all objective lenses and the eyepiece with a special wipe.
- Remove slide from stage.
- Turn off and unplug the microscope.
- Wrap the cord around the microscope.
- Lower the stage all the way using the coarse adjustment knob.
- Return the microscope to where you got it from, holding the arm and the base.

## **EXTREMELY IMPORTANT**

***You will never see a specimen on a higher magnification if you can't see it on the lower one. Never use coarse adjustment knob on high magnification.***

- If you can't see the specimen on high, go back to medium.
- If you can't see the specimen on medium, go back to low.
- If you can't see the specimen on low, redo all the "Preparing to Use Your Microscope" steps and try to find the specimen again.
- If you still can't see the specimen, ask for help.