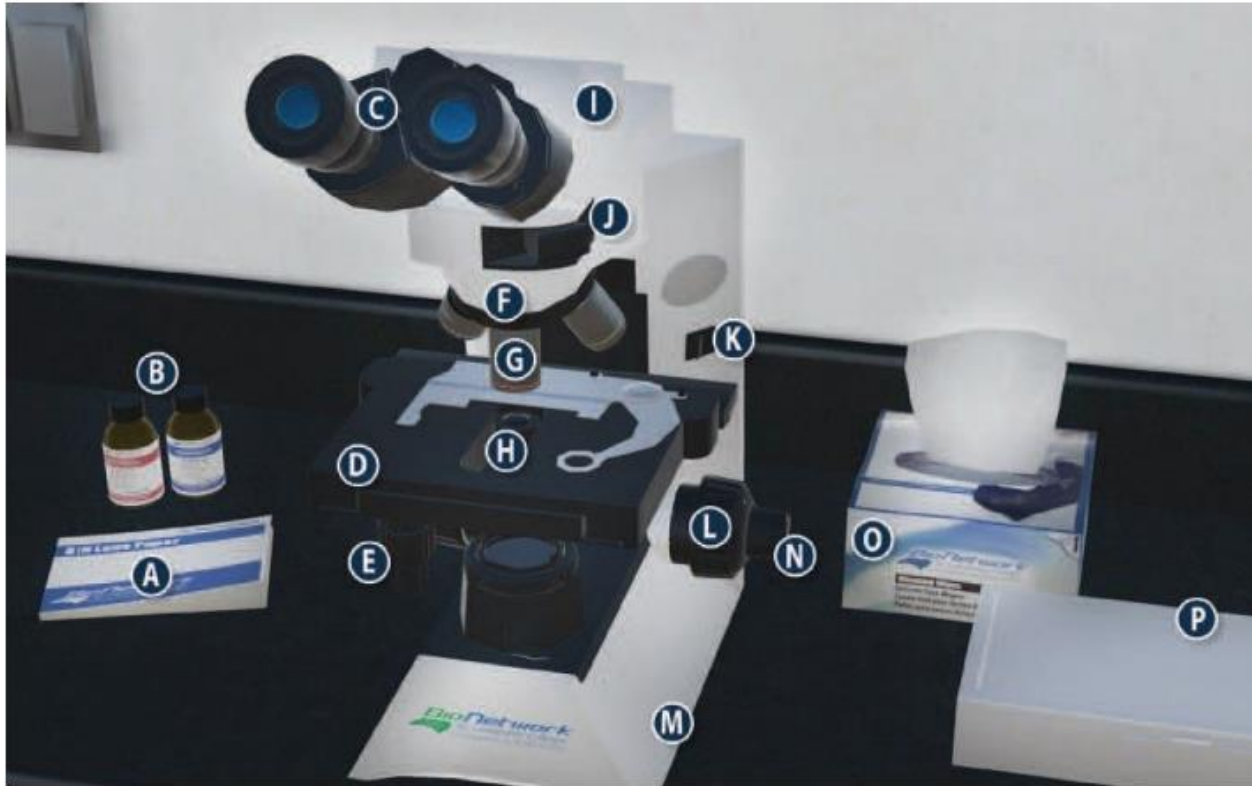


**Purpose:** To familiarize yourself with a virtual microscope and its components.

This activity can be completed on the following website: <http://www.ncbionetwork.org/iet/microscope/>

**Instructions:**

Go to the link above on your web browser. Once the virtual microscope loads, you can use the “learn” tab on the bottom to familiarize yourself with the virtual microscope. As you click on each of the microscope parts, read the pop-up to answer the following.



1. Identify each of the following by letter.

- |                      |                            |                   |
|----------------------|----------------------------|-------------------|
| ___ On/Off Switch    | ___ Eyepiece / Ocular Lens | ___ Immersion Oil |
| ___ Arm              | ___ Nosepiece              | ___ Slide Box     |
| ___ Objective Lenses | ___ Stage                  | ___ Kimwipes      |
| ___ Diaphragm        | ___ Stage Adjustment       |                   |
| ___ Base             | ___ Coarse Adjustment      |                   |
| ___ Lens Paper       | ___ Fine Adjustment        |                   |

2. Briefly explain what each of the following does on the microscope from the descriptions given.

a. Objective Lenses \_\_\_\_\_

b. Diaphragm \_\_\_\_\_

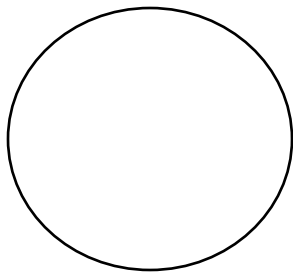
c. Stage \_\_\_\_\_

d. Course Adjustment \_\_\_\_\_

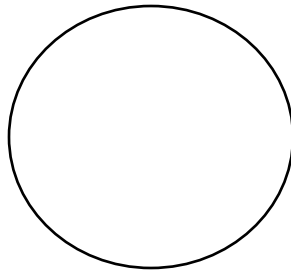
e. Fine Adjustment \_\_\_\_\_

3. Go back to the main menu and then to the "EXPLORE" tab to view slides. You will need to use the coarse and fine focus and adjust the light to get clear views of the following. The slide can also be moved within the viewing field.

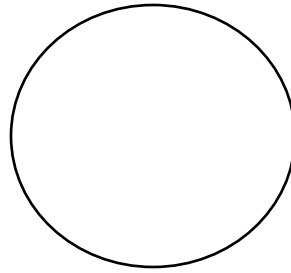
a. Select the "Sample Slides" option and then the letter 'e'. Draw what you see on the 4 different settings.



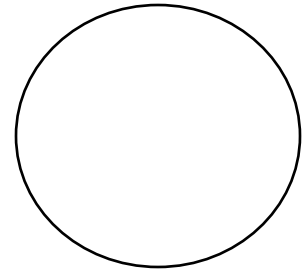
**4x**



**10x**



**40x**



**100x**

b. What did you need to do before viewing the slide at 100x?

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c. A common mistake for beginners is thinking that the "e" just disappears at the high magnification. How would you explain to a younger student what happened to the e as you increase the magnification?

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d. Switch the lens to the 100x setting and quickly move the coarse focus all the way to the right. What happens? How could this be avoided with a real microscope?

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