

adjustment knob. In this case, return to the low-power objective lens and refocus. try the high-power objective lens again, following the procedure in steps 6 and 7.

Observations

1. Label the parts of the microscope in Figure 3.

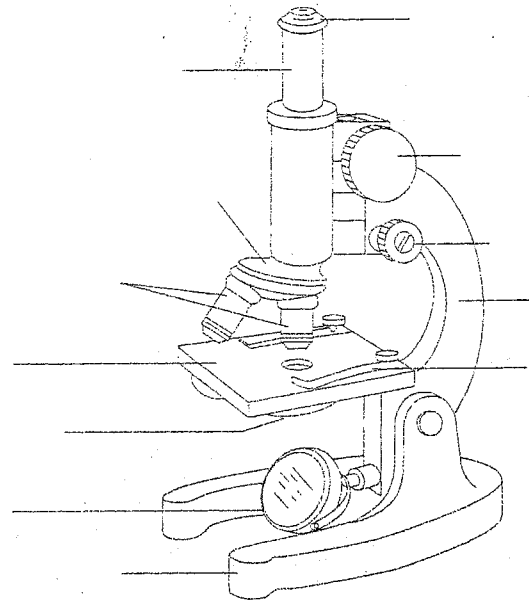


Figure 3

2. What is the magnification power of each objective? _____

3. What is the highest magnification power of the microscope? _____

4. How should you carry a microscope? _____

5. On the lines, give the function of each part of a microscope.
 - a. Objective lenses _____

 - b. Eyepiece _____

8. If the image of the object is not clear and sharp, do not continue to turn the fine adjustment knob. In this case, return to the low-power objective lens and refocus. Try the high-power objective lens again, following the procedure in steps 6 and 7.

Observations

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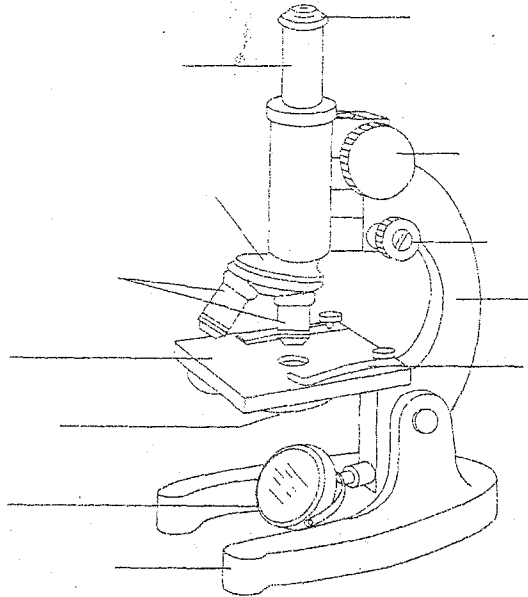


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- b. Eyepiece _____

Name _____ Class _____ Date _____

c. Stage _____

d. Mirror _____

e. Diaphragm _____

f. Coarse adjustment knob _____

g. Fine adjustment knob _____

6. What kind of light source do you have on your microscope?

Analysis and Conclusions

1. On the lines, write the total magnification for each pair of lenses.

<i>Eyepiece Lens</i>	<i>Objective Lens</i>	<i>Total Magnification</i>
a. 5×	10×	_____
b. 10×	10×	_____
c. 10×	43×	_____
d. 20×	10×	_____
e. 20×	50×	_____

2. Why must you be careful when you are focusing with the high-power lens? What precautions should you take? _____

3. Describe the procedure for focusing a microscope using the coarse and fine adjustment knobs.

Critical Thinking and Application

1. Why is it a good idea to place your microscope at least 10 cm from the edge of the table?

2. Why should you always use the low-power objective lens to locate objects mounted on the slide first, even if you want to observe them with the high-power objective lens?

3. Why should a microscope slide be held by its edges?

4. When switching from the low-power objective to the high-power objective should you open or close the diaphragm? Explain your answer.

Going Further

Observe an insect leg under the low- and high-power objective lenses of a microscope. Compare what you see under both objective lenses. Which objective lens allows you to see more detail? Which objective lens allows you to see more of the insect's leg?