

Name _____ Date _____ Class _____

Review: Characteristics of life and microscope

1. Describe how biologists currently define something as “living”.
2. Visit this [site](#) and copy the defining characteristics of life here in your review (read them carefully and get the details).
3. Compare them to what you wrote in number 1 how are they different and or similar.
4. What was the point that the character (Leavitt) in *the Andromeda Strain* passage was trying to make about defining something as living or not? Explain.
5. Label the parts of the microscope and explain their function.



6. Describe how you would go about preparing wet mount slide for viewing your specimen.
7. How is it possible to calculate the total magnification of a specimen you are viewing on the microscope?
8. Describe your understanding of how the orientation of a specimen under the microscope changes from viewing it with the naked eye.
9. Describe the proper care of a microscope.
10. Discuss “resolution” and how it is affected by using a microscope.
11. Explain the process you would use from start to finish in order to focus in on a specimen at 400x.
12. Compare and contrast two metric measuring units that are useful in measuring small objects under the light microscope.

13. Describe two ways you could determine the diameter of the 400x field of view and what is would be measured in.

Multiple choice questions

1. A snake eats an egg for nutritional value so the snake is able to move and hunt.
A. Growth B. Energy utilization C. evolution D. Regulation
2. Evolution is given as a characteristic of life on our web page which of these does it best match:
A. adaptation B. reproduction C. growth D. use energy
3. When viewing a specimen with our microscopes on low power (4x), what is the total magnification of the specimen?
A. 10x B. 40x C. 400x D. 4000x
4. When making a wet mount slide always make sure to stand the cover slide next to the specimen and then lay it over on the specimen in order to
A. create a hovering affect that will not scratch the slide B. not smash the specimen. C. reduces the chance of cutting yourself. D. decreases the chance of air bubbles.
5. Traits giving an organism an advantage in a certain environment
A. modification B. mutations C. adaptations D. none of these
6. Must occur for a species to survive.
A. behavior B. reproduction C. hunting prey D. reproduction
7. The part of the microscope that the slide rests on.
A. arm B. condenser C. stage D. base

Continued reinforcement: describe and give example of each

Hypothesis

Prediction

Independent variable

Dependent variable

Control