

REVIEW SHEET – UNIT 1 EXAM – DIRECTED BIOLOGY

Test will be on _____

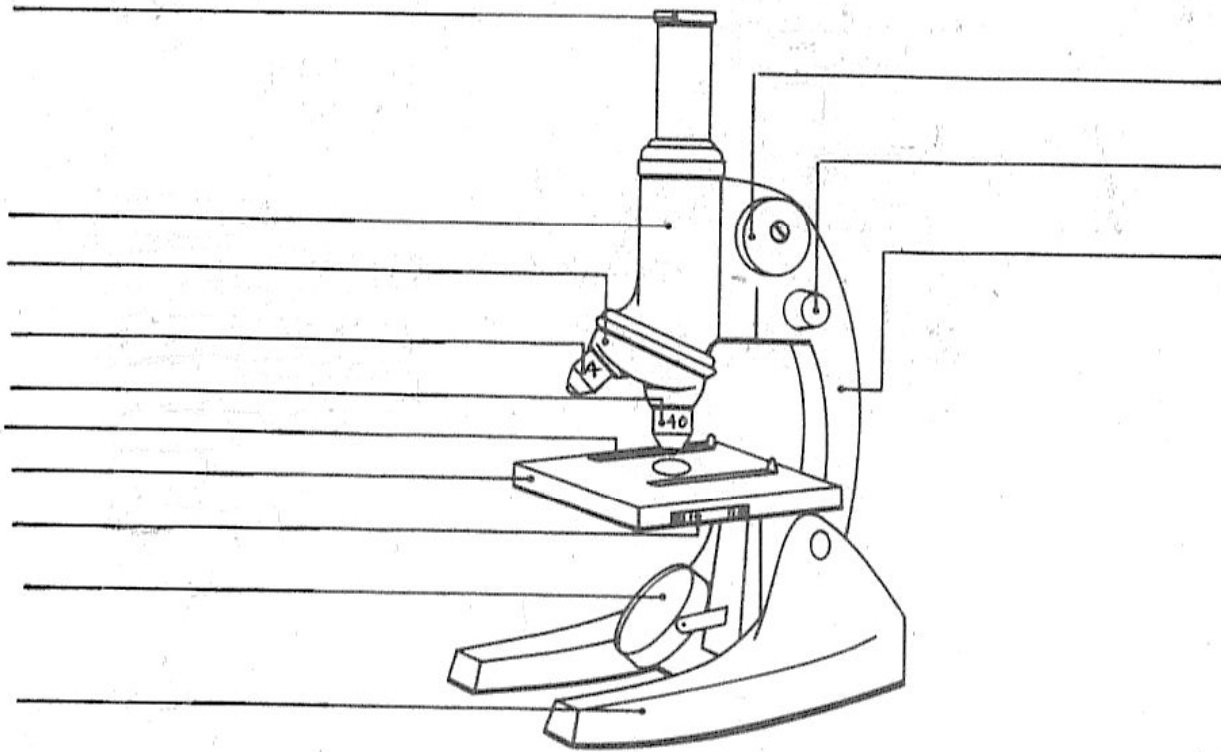
- ☺ Know the difference between an observation and an inference.
- ☺ Be able to perform metric conversions.
- ☺ Know proper safety practices in the laboratory.

1. The 4 basic steps of the scientific method are _____, _____, _____, and _____.
2. The process of gathering information using your senses is called _____.
3. An educated guess used to try to solve a problem is called a _____.
4. The variable that is changed, manipulated, or controlled by the experimenter is the _____.
5. The variable that measures the change in the experiment is the _____.
6. A well designed experiment will test only one independent variable and have a _____ group.
7. A hypothesis is tested by an _____.
8. Misuse of an instrument is a type of _____ error.
9. The S.I. base unit for length is the _____.
10. The S.I. base unit for volume is the _____.
11. S. I. stands for _____.
12. The ability of a microscope to distinguish two objects as being separate is known as _____.
13. One advantage of the S.I. System is that it is based on multiples of _____.
14. The amount of blood in the human body would be measured in S.I. units of _____.
15. Length of your fingers would best be measured using centimeters or kilometers?
16. Daily growth of your hair would best be measured using centimeters or millimeters?
17. To find the total magnification of a microscope you _____ the magnification of the _____ by the magnification of the _____.
18. The source of light used in a typical compound microscope is _____.
19. The part of the microscope that you place the slide on is called the _____.
20. Initial focusing of the microscope with the low power objective is best performed using the _____ wheel adjustment.
21. If your compound microscope has an eyepiece lens at 10X and an objective lens at 43X, total magnification would be _____.
22. Biology is the science of _____.
23. Biological knowledge is used to fight infectious _____, help cure genetic _____, and _____ a hungry world.
24. Magnification is defined as the ability of a microscope to make an object appear _____.
25. An inference is a _____ conclusion based on _____.
26. Microscope lenses should always be cleaned with _____ only.
27. The _____ is used to increase or decrease the amount of light shining through the specimen on a microscope.
28. The _____ of a microscope is used to carefully carry the scope from one area to another.
29. Name 5 prefixes used in the S.I. System: _____
30. The group in which all the variables remain constant is the _____ group.
31. Information gathered from an experiment or observation is called _____.

32. An _____ tests an explanation or prediction.
33. In solving a problem, the BEST first step would be to define the problem by asking _____ and forming a _____.
34. A good observation should be _____ and _____.
35. The starting point of all scientific research is to state the _____ based on an _____.

IX. Microscope parts

Using the work bank below, properly label the parts of the microscope.



- | | |
|------------------------------|----------------------|
| mirror | low power objective |
| coarse focus adjustment knob | high power objective |
| disc diaphragm | base |
| eyepiece | stage |
| stage clips | revolving nosepiece |
| arm | body tube |
| fine focus adjustment knob | |