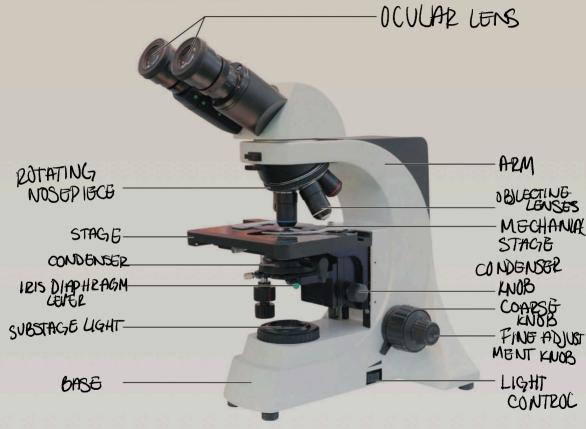


## REVIEW SHEET The Microscope

Name FREEDOM ALMANZAR Lab Time/Date 3/6/2

## Care and Structure of the Compound Microscope

1. Label all indicated parts of the microscope.



2. Explain the proper technique for transporting the microscope.

YOU MUST HOW IT TIGHT AND UPLIGHT POSITION, ONE HAND ON THE ARM AND OTHER ON BASE.

Column A				Column B			
	_ 1.	platform on which the slide rest	s for viewing	a.	coarse adjustment knob		
	_ 2.	used to adjust the amount of light passing through the specimen	light passing through	b. c, d. e, f, g. h.	condenser fine adjustment knob iris diaphragm lever mechanical stage nosepiece objective lenses ocular lens stage		
_5_	_ 3.	controls the movement of the	slide on the stage				
_B_	_ 4.	delivers a concentrated beam of	of light to the specimen				
	_ 5.	used for precise focusing on been done	ce initial focusing has				
<u> </u>	_ 6.	carries the objective lenses; ro ent objective lenses can be bro the specimena.					
5. Define the fo	ollowin	terms.					
total magnifi	cation:	BEING ABLE TO	VIEW EQUAL	4	TO THE POWER		
					ER OF OBJECTIVE LENS US		
					BIFOT AS SEPARATE.		
resolution	·() (	or to dispersion	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		ejos		
Viewing Obj	ects	Through the Microsco	pe				
		nd to, the following statements:					
WORKIN	G)19	The distance from	the bottom of the objective I	ens to	the surface of the slide is called		
<b>/</b> 1		the					
INTHE	- (G	2. Assume there is an	Assume there is an object on the left side of the field that you want to bring to the center				
		(that is, toward the a	pparent right). In what direction v	would	you move your slide?		
FIELD	) ~	3. The area of the slide	seen when looking through the	micro	oscope is the		
45	)	1 If a microscope has	a 10 × ocular lens and the total i	maani	fication is 950 × the objective lens in		

use at that time is \_\_\_\_\_ ×.

3. Each of the following statements is either true or false. If true, write T on the answer blank. If false, correct the statement by

7- LOWEST - POWER

2. The microscope should be stored with the oil immersion lens in position over the stage.

3. When beginning to focus, use the scanning objective lens.

4. When focusing on high power, always use the coarse adjustment knob to focus.

5. A coverslip should always be used with wet mounts.

4. Match the microscope structures in column B with the statements in column A that identify or describe them.

writing on the blank the proper word or phrase to replace the one that is underlined.

F - SPECIAL GRITH-FIGE 71. The microscope lens may be cleaned with any soft tissue.

at the higher powers, the microscope is said to be	n looking at living (nearly transparent) cells?	N CREASE CONTRAST Why sho	
7. You are using a 10× ocular and a 15× objective, and the field diameter is 1.5 mm. proximate field size with a 30× objective is mm.  8. If the diameter of the low-power field is 1.5 mm, an object that occupies approximately of that field has an estimated diameter of mm.  7. You have been asked to prepare a slide with the letter F on it (as shown below). In the circle below, draw the F as seer low-power field.  F  8. Estimate the length (longest dimension) of the object in µm:  Cl. 6 mm × 100 / 100 =  Total magnification = 100×  Field diameter = 1.6 mm  Length of object = in	ed to use only the fine adjustment to focus the specimen	11 KFOCHL 6. If, after the	ţ
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11. A student has the high-power lens in position and appears to be intently observing the specimen. The instructor, noting ing distance of about 1 cm, knows the student isn't actually seeing the specimen.	S MAGNIP CATION INCREA- IS ALSO HAS HIGHERFIE THE OBJECT  magnifications with the microscope?  light needed: INCREASE	Fotal magnification = 100× Field diameter = 1.6 mm  Length of object = 1.6 mm  Say you are observing an object in the low  Why might this occur? FIGU  What should you do initially to prevent the second of the following factors increase or decreased in the second of the following factors increase or decreased in the second of the following factors increase or decreased in the second of the following factors increase or decreased in the second of the following factors increase or decreased in the second of the following factors increase or decreased in the second of the following factors increase or decreased in the second of the following factors increase or decreased in the second of the following factors increase or decreased in the second of the	9. S V V
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12.	Describe the proper procedure for preparing a wet mount.
	PLACE SPECIMEN ON THE SLIDE AND PLACE A DROP OF
	WATER OR SALING IN THE SLUE, MUD THE SPECIMEN USING A
•	TOOTHPICK. THEN ADD A DROP OF STAIN AND MIX. LAREFULLY LOWER THE COVERSLIP ONTO THE SPECIMEN Indicate the probable cause of the following situations during use of a microscope.
13.	Indicate the probable cause of the following situations during use of a microscope.
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a. Only half of the field is illuminated: HF UNS	15 NO1	CORREGULY	KOTATU
INTO PLACE.		•	
	TUE	S/1NF 15	LIST

b. The visible field does not change as the mechanical stage is moved: THE SUDE 15 NOT CORRECTLY POSITIONERS IN THE CLAMP

14. • A blood smear is used to diagnose malaria. In patients with malaria, the protozoa can be found near and inside red blood cells. Explain why a microscope capable of high magnification and high resolution would be needed to diagnose malaria.

TO BE ABLE TO SEE INSIDE THE RED BLOOD CELL

15. Histopathology is the use of microscopes to view tissues to diagnose and track the progression of diseases. Why are thin slices of tissue ideal for this procedure? ITS IDEAL BECAUSE THE LIGHT IS ABUE TO PASS THEOUGH THE SIMPLE