



# Lab # 16

## STUDENT WORKSHEET FOR MICROSLIDE® LESSON SET 62 REPRODUCTION (HUMAN)

STUDENTS NAME \_\_\_\_\_ CLASS \_\_\_\_\_ DATE \_\_\_\_\_

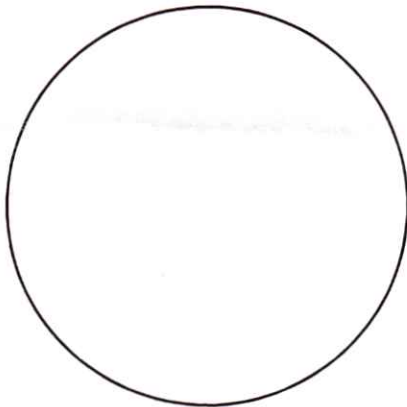
### INTRODUCTION

In this unit you will have the opportunity to examine slides illustrating the earliest stages of human development using the Microslide® Viewer, Microslides®, and Text Folders.

Read and follow the directions for the use of the Microslide® Viewer and the Microslide® on the envelope attached to the text folder that is holding the slides.

Examine each slide and study the description in the text folder. After studying each slide and the printed text, answer the question for that slide on this worksheet. If you don't know the answer, go on to the next slide and question. You may find the answer as you learn more about the subject. Draw what you see in the space provided.

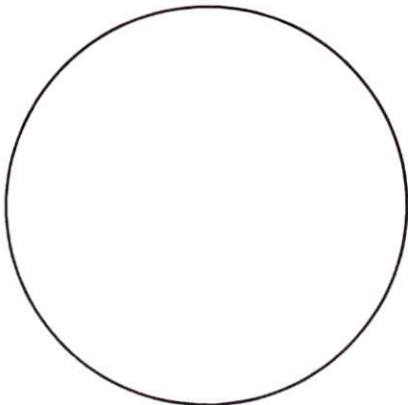
### Slide 1 - SPERM CELLS



- Draw a sperm cell.
- Define sexual reproduction \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- What is a gamete? \_\_\_\_\_  
\_\_\_\_\_
- The head of the sperm contains a set of \_\_\_\_\_ chromosomes.

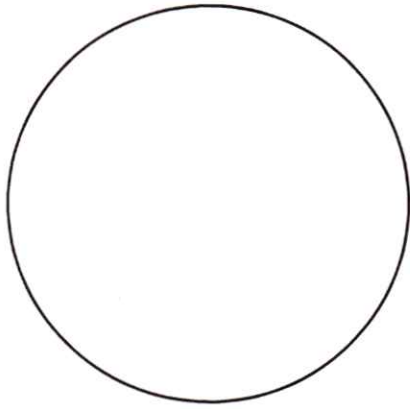
### SLIDE 2 - EGG CELL - FERTILIZATION

- Draw the egg cell and one of the sperm cells that you see in this slide.



- Why is the egg cell so much larger than the sperm cell? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- The nucleus of the ovum contains \_\_\_\_\_ chromosomes.

SLIDE 3 - FERTILIZED EGG - (ZYGOTE)

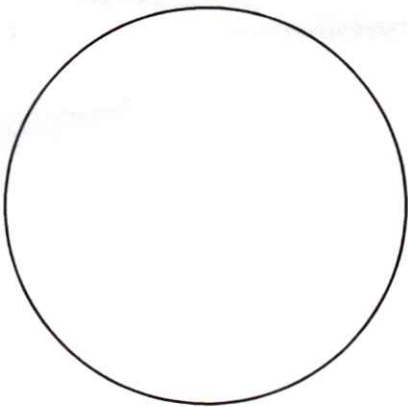


- a. Draw the fertilized egg. Label the 2 nuclei.
- b. How many individual chromosomes will the zygote contain? \_\_\_\_\_
- c. Which parent, mother or father, contributed more to the heredity of the offspring? \_\_\_\_\_

SLIDE 4 - TWO-CELLED EMBRYO -FIRST CLEAVAGE

- a. As soon as the zygote begins growing and dividing it is called an \_\_\_\_\_.
- b. This type of cell division is (the same as) (different from) that occurring in a one-celled organism. Underline your choice.

SLIDE 5 - CHROMOSOMES

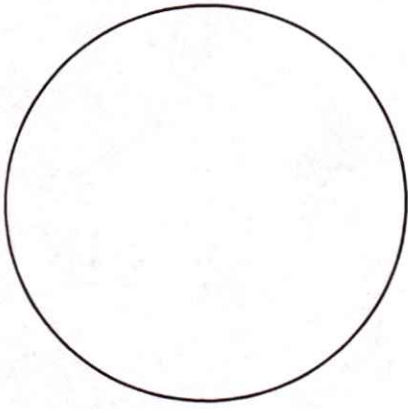


- a. Draw a few typical chromosomes.
- b. Are the chromosomes the same size and shape? \_\_\_\_\_
- c. Every embryo cell has \_\_\_\_\_ chromosomes.
- d. Most healthy human cells have \_\_\_\_\_ chromosomes.  
Are there any exceptions? \_\_\_\_\_  
\_\_\_\_\_

SLIDE 6 - MORULA - BALL OF CELLS

- a. How many divisions were required to produce the embryo in this slide? \_\_\_\_\_
- b. Tissue differentiation (has) (has not) began. Underline your choice.

SLIDE 7 - BLASTULA - HOLLOW BALL OF CELLS



- a. Draw the blastula.
- b. Draw an arrow to the hollow space within the blastula.
- c. Are all the cells the same size? \_\_\_\_\_  
\_\_\_\_\_
- d. If the embryo's body cells divide themselves into two groups of cells at this stage, the result would be (fraternal) (identical) twins. Underline your choice.

SLIDE 8 - EMBRYO - FIVE WEEKS

- a. What is the function of the membrane that encloses the embryo? \_\_\_\_\_  
\_\_\_\_\_
- b. Food is carried to the embryo through the \_\_\_\_\_.

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