

## Skills Worksheet

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# Sexual Reproduction and Meiosis

## Work-Alikes

In the space provided, write the letter of the term or phrase that best describes how each numbered item functions.

\_\_reproduction

- |                                 |  |
|---------------------------------|--|
| _____ 1. anaphase I             | a. bees returning to the hive            |
| _____ 2. crossing-over          | b. a meeting                             |
| _____ 3. metaphase I            | c. shuffling a deck of cards             |
| _____ 4. meiosis II             | d. raindrops joining together            |
| _____ 5. telophase I            | e. other half of a baseball inning       |
| _____ 6. prophase I             | f. changing dance partners               |
| _____ 7. independent assortment | g. pulling apart string cheese           |
| _____ 8. random fertilization   | h. breaking a container and water spills |

## Cause and Effect

In the space provided, write the letter of the term or phrase that best matches each cause or effect given below.

- | Cause                     | Effect                       |   |
|---------------------------|------------------------------|---|
| 9. _____                  | first cell of new individual | a. gametes  |
| 10. meiosis I and II      | _____                        | b. eggs and sperm join                                      |
| 11. _____                 | gametes join by fusion.      | c. all cells of organisms are haploid cells                 |
| 12. repair of damaged DNA | _____                        | d. possible explanation of evolution of sexual reproduction |

## Sexual Reproduction and Meiosis *continued*

### Trade-offs

In the space provided, write the letter of the bad news item that best matches each numbered good news item below. Good News

- \_\_\_\_\_ 13. Agricultural breeding increases the sizes of domesticated animals.  
\_\_\_\_\_ 14. The ovum produced by oogenesis is very large.  
\_\_\_\_\_ 15. Asexual reproduction allows organisms to reproduce quickly.  
\_\_\_\_\_ 16. Sexual reproduction makes different combinations of genes quickly.

### Linkages

#### Bad News

- a. Organisms must use energy to produce gametes and find mates.
- b. The ability to obtain larger animals slows down.
- c. They may be at a disadvantage in a changing environment.
- d. Two polar bodies produced die.

In the spaces provided, write the letters of the two terms or phrases that are linked together by the term or phrase in the middle. The choices can be placed in any order.

17. \_\_\_\_\_ meiosis II \_\_\_\_\_  
18. \_\_\_\_\_ ndependent assortment \_\_\_\_\_  
19. \_\_\_\_\_ crossing-over \_\_\_\_\_  
20. \_\_\_\_\_ individuals split off \_\_\_\_\_

- a. budding in hydra
- b. four chromatids line up in prophase I
- c. gametes
- d. meiosis I
- e. asexual reproduction
- f. recombination of genes in gametes
- g. unpaired chromosomes in gametes
- h. pairs of chromosomes in organisms

### Analogies

An analogy is a relationship between two pairs of terms or phrases written as  $a : b :: c : d$ . The symbol  $:$  is read as "is to," and the symbol  $::$  is read as "as." In the space provided, write the letter of the pair of terms or phrases that best completes the analogy shown.

\_\_\_\_\_ 21. chromatids : crossing-over ::

- a. gametes : chromosomes
- b. metaphase : anaphase
- c. hook : fishing rod
- d. tires : changing flat tire

\_\_\_\_\_ 22. asexual reproduction : clone ::

- a. spermatogenesis : ovum
- b. fission : budding
- c. meiosis : gamete
- d. fragmentation : budding

\_\_\_\_\_ 23. haploid life cycle : fusion ::

- a. diploid life cycle : fusion
- b. diploid life cycle : fertilization
- c. fertilization : gametes
- d. gametes : fertilization

\_\_\_\_\_ 24. sporophyte : spore ::

- a. sexual reproduction : clone
- b. spore : sporophyte
- c. gamete : spore
- d. gametophyte : gamete