

## Reproductive Adaptations

Animals and plants have a number of adaptations that increase their chances of reproductive success. Some examples are described below.

### Behavior

- supporting and nurturing their young until they are capable of fending for themselves
- many animals carry out elaborate dances or other rituals to attract/impress a potential mate
  - birds often ruffle their feathers
  - rams butt heads to demonstrate their strength

### Appearance

- plants and animals often display flashy colors to aid in reproduction
  - flowers use color to attract insects who then spread the pollen around
  - birds use brightly colored feathers to attract the attention of a mate

### Mating Calls

- many animal species make specific sounds to alert potential mates that they are available
  - elk make a bugling sound
  - the disadvantage to this adaptation is that many hunters use artificial calls to attract prey

### Chemical Cues

- animals give off chemicals called pheromones when attracted to a potential mate
- the mate detects the pheromones and becomes more receptive to the possibility of reproduction

### Number of Offspring

- some species produce large numbers of offspring to increase the chances that some will survive to adulthood

### Number of Gametes

- some species produce large numbers of gametes to increase the chances of successful fertilization
  - human males produce 350 million sperm per ejaculation
  - fish lay hundreds of eggs at a time

## Sexual Reproduction in Animals

Read section 2.2 (p. 51 to 59) in your textbook and answer the following questions.

1. Describe the fundamental sequence that allows some animals to reproduce sexually. \_\_\_\_\_  
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2. State the two requirements that must be met for sexual reproduction to be successful. \_\_\_\_\_  
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3. Define the term mating. \_\_\_\_\_  
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4. Briefly explain the difference between internal and external fertilization. \_\_\_\_\_  
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5. Give three examples of animals that reproduce through external fertilization. \_\_\_\_\_  
\_\_\_\_\_
6. Give three examples of animals that reproduce through internal fertilization. \_\_\_\_\_  
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7. (a) What is a hermaphrodite? (b) Give an example of an animal that is a hermaphrodite. \_\_\_\_\_  
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## Sexual Reproduction in Plants

Read section 2.3 (p. 60 to 71) in your textbook and answer the following questions.

1. What is a seed? \_\_\_\_\_  
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\_\_\_\_\_
2. Explain the difference between angiosperms and gymnosperms. \_\_\_\_\_  
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\_\_\_\_\_  
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3. What is the function of a flower? \_\_\_\_\_  
\_\_\_\_\_
4. In angiosperms, the female reproductive organ is called the \_\_\_\_\_  
and the male reproductive organ is called the \_\_\_\_\_.
5. What is pollination? \_\_\_\_\_  
\_\_\_\_\_
6. Explain the difference between self-pollination and cross-pollination. \_\_\_\_\_  
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7. What purpose does fruit serve in plant reproduction? \_\_\_\_\_  
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8. Describe four different ways that a seed could be carried away from the parent plant. \_\_\_\_\_  
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9. Define the term germination. \_\_\_\_\_  
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## The Value of Variation

Read section 2.4 (p. 72 to 74) in your textbook and answer the following questions.

1. What is the main value of variation? \_\_\_\_\_  
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2. (a) Which form of reproduction produces the most variation? (b) Why? \_\_\_\_\_  
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3. (a) What is conjugation? (b) In what kind of organism does conjugation occur? \_\_\_\_\_  
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