

In reproduction, characteristics are passed on from parents to offspring.

\_\_\_\_\_  
Student Name

\_\_\_\_\_  
Class

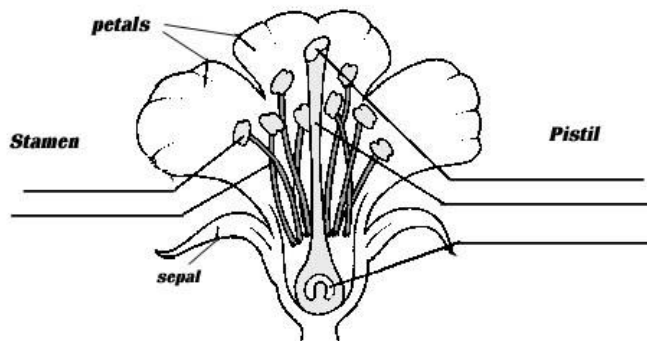
### A Closer Look At Variation

1. To better understand variation; scientists explore the characteristics, which are passed on from generation to generation within a species. Those characteristics that are passed on from generation to generation are ...
  - A. genetic
  - B. inherited
  - C. non-inherited
  - D. non-genetic
2. This type of characteristic, *eye color*, is considered to be ...
  - A. genetic
  - B. inherited
  - C. non-inherited
  - D. non-genetic
3. An albino kangaroo is a kangaroo that is pure white. This characteristic is classified as a ...
  - A. non-inherited variation
  - B. continuous variation
  - C. discrete variation
  - D. singular variation
4. Those characteristics or variations that have a wide range of forms are ...
  - A. obnoxious
  - B. discrete
  - C. overbearing
  - D. continuous
5. Your height is considered to be a heritable characteristic, but is affected by ...
  - A. age
  - B. diet
  - C. bone mass
  - D. skin type
6. Variations caused by interactions with the environment are not heritable. Plants that are grown in dim lighting conditions would turn out to be ...
  - A. identical to their parents in all aspects
  - B. much like their parents
  - C. very different from their parents
  - D. similar to parent plants that were grown in dim light
7. In a class activity students recorded the results of Left Thumb on top vs Right Thumb on top. The data they collected indicated that '*hand-clasping preference*' was ...
  - A. unrelated
  - B. discrete
  - C. isolated
  - D. continuous

## Asexual and Sexual Reproduction

8. There are different forms of reproduction in organisms. **Asexual reproduction** involves only one parent. A hydra reproduces asexually when it produces a smaller version of itself by ...
- A. budding
  - B. binary fission
  - C. spore production
  - D. vegetative reproduction
9. **Parthenogenesis**, meaning 'virgin birth' in Greek, is the term used to describe the process that transforms unfertilized eggs into mature organisms. Bees are a good example, where unfertilized eggs become ...
- A. queen bees
  - B. male workers
  - C. female workers
  - D. male drones
10. Fungi, algae, moulds and non-flowering plants reproduce by producing ...
- A. seeds
  - B. spores
  - C. buds
  - D. tubers
11. When a **plant cutting** produces a new individual, it does so without the formation of a seed. This type of asexual reproduction is called ...
- A. budding
  - B. binary fission
  - C. spore production
  - D. vegetative reproduction
12. **Suckers** (which are miniature identical forms of the parent plant) can be formed in the roots of poplar trees. Each of these suckers can produce trees identical to the parent tree. This form of asexual reproduction is called ...
- A. budding
  - B. binary fission
  - C. spore production
  - D. vegetative reproduction
13. The most likely alien form of reproduction would be these because they can be dormant for long periods of time and can survive in space ...
- A. seeds
  - B. spores
  - C. buds
  - D. tubers
14. Sexual reproduction in plants and animals relies on the union of two specialized cells called ...
- A. zygotes
  - B. embryos
  - C. gametes
  - D. stamens
15. When a female cell (egg) is penetrated by a male cell (sperm) this occurs ...
- A. fertilization
  - B. cleavage
  - C. pollination
  - D. specialization

16. This diagram illustrates the *parts of a flower*.



- The **stamen** is the ...
- female part
  - male part
  - seed producing part
  - zygote producing part
17. The **pistil** is made up of the following parts ...
- ovary, filament, stigma
  - stamen, stigma, ovary
  - anther, ovary, stigma
  - stigma, style, ovary
18. **Cross-fertilization** occurs when a pollen grain ...
- from one plant fertilizes a different plant
  - from one plant fertilizes the plant it belongs to
  - is not able to pollinate another plant
  - is carried by the wind, water or animal to another plant
19. Some plants and animals can reproduce **asexually and sexually**. Alternating between these types of reproduction enables the organism to be ...
- identical to their parents in all aspects
  - much like their parents
  - very different from their parents
  - identical to parent plants every other generation
20. Plants or animals that can reproduce **asexually and sexually** include the following ...
- prairie cord grass
  - garden worms and slugs
  - aphids and sponges
  - identical to parent plants every other generation
21. Sexual reproduction is very **advantageous** because it provides lots of ...
- identical organisms
  - variation among the species
  - energy for the species to survive
  - similar copies of the parent
22. Asexual reproduction is very **advantageous** because it provides lots of ...
- identical organisms
  - variation among the species
  - energy for the species to survive
  - similar copies of the parent

In reproduction, characteristics are passed on from parents to offspring.

**ANSWER KEY**

\_\_\_\_\_  
Student Name

\_\_\_\_\_  
Class

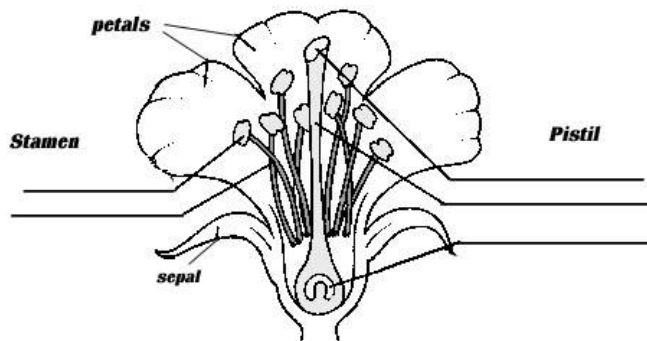
### A Closer Look At Variation

1. To better understand variation; scientists explore the characteristics, which are passed on from generation to generation within a species. Those characteristics that are passed on from generation to generation are ...
  - A. genetic
  - B. inherited**
  - C. non-inherited
  - D. non-genetic
2. This type of characteristic, *eye color*, is considered to be ...
  - A. genetic
  - B. inherited**
  - C. non-inherited
  - D. non-genetic
3. An albino kangaroo is a kangaroo that is pure white. This characteristic is classified as a ...
  - A. non-inherited variation
  - B. continuous variation
  - C. discrete variation**
  - D. singular variation
4. Those characteristics or variations that have a wide range of forms are ...
  - A. obnoxious
  - B. discrete
  - C. overbearing
  - D. continuous**
5. Your height is considered to be a heritable characteristic, but is affected by ...
  - A. age
  - B. diet**
  - C. bone mass
  - D. skin type
6. Variations caused by interactions with the environment are not heritable. Plants that are grown in dim lighting conditions would turn out to be ...
  - A. identical to their parents in all aspects
  - B. much like their parents
  - C. very different from their parents
  - D. similar to parent plants that were grown in dim light**
7. In a class activity students recorded the results of Left Thumb on top vs Right Thumb on top. The data they collected indicated that '*hand-clasping preference*' was ...
  - A. unrelated
  - B. discrete**
  - C. isolated
  - D. continuous

## Asexual and Sexual Reproduction

8. There are different forms of reproduction in organisms. **Asexual reproduction** involves only one parent. A hydra reproduces asexually when it produces a smaller version of itself by ...
- A. budding
  - B. binary fission
  - C. spore production
  - D. vegetative reproduction
9. **Parthenogenesis**, meaning 'virgin birth' in Greek, is the term used to describe the process that transforms unfertilized eggs into mature organisms. Bees are a good example, where unfertilized eggs become ...
- A. queen bees
  - B. male workers
  - C. female workers
  - D. male drones
10. Fungi, algae, moulds and non-flowering plants reproduce by producing ...
- A. seeds
  - B. spores
  - C. buds
  - D. tubers
11. When a **plant cutting** produces a new individual, it does so without the formation of a seed. This type of asexual reproduction is called ...
- A. budding
  - B. binary fission
  - C. spore production
  - D. vegetative reproduction
12. **Suckers** (which are miniature identical forms of the parent plant) can be formed in the roots of poplar trees. Each of these suckers can produce trees identical to the parent tree. This form of asexual reproduction is called ...
- A. budding
  - B. binary fission
  - C. spore production
  - D. vegetative reproduction
13. The most likely alien form of reproduction would be these because they can be dormant for long periods of time and can survive in space ...
- A. seeds
  - B. spores
  - C. buds
  - D. tubers
14. Sexual reproduction in plants and animals relies on the union of two specialized cells called ...
- A. zygotes
  - B. embryos
  - C. gametes
  - D. stamens
15. When a female cell (egg) is penetrated by a male cell (sperm) this occurs ...
- A. fertilization
  - B. cleavage
  - C. pollination
  - D. specialization

16. This diagram illustrates the *parts of a flower*.



- The **stamen** is the ...
- female part
  - male part**
  - seed producing part
  - zygote producing part
17. The **pistil** is made up of the following parts ...
- ovary, filament, stigma
  - stamen, stigma, ovary
  - anther, ovary, stigma
  - stigma, style, ovary**
18. **Cross-fertilization** occurs when a pollen grain ...
- from one plant fertilizes a different plant**
  - from one plant fertilizes the plant it belongs to
  - is not able to pollinate another plant
  - is carried by the wind, water or animal to another plant
19. Some plants and animals can reproduce **asexually and sexually**. Alternating between these types of reproduction enables the organism to be ...
- identical to their parents in all aspects
  - much like their parents
  - very different from their parents
  - identical to parent plants every other generation**
20. Plants or animals that can reproduce **asexually and sexually** include the following ...
- prairie cord grass
  - garden worms and slugs
  - aphids and sponges**
  - identical to parent plants every other generation
21. Sexual reproduction is very **advantageous** because it provides lots of ...
- identical organisms
  - variation among the species**
  - energy for the species to survive
  - similar copies of the parent
22. Asexual reproduction is very **advantageous** because it provides lots of ...
- identical organisms**
  - variation among the species
  - energy for the species to survive
  - similar copies of the parent