

TEST NAME: **Organisms**  
TEST ID: **3016454**  
GRADE: **10 - Tenth Grade**  
SUBJECT: **Life and Physical Sciences**  
TEST CATEGORY: **School Assessment**

Student: \_\_\_\_\_

Class: \_\_\_\_\_

Date: \_\_\_\_\_





1. Which action **best** represents insight learning?
  - A. A pigeon in a city park ignores the people walking around.
  - B. A child receives candy when he or she gives the correct answer.
  - C. A dog salivates whenever a bell rings in the anticipation of food.
  - D. A chimpanzee stacks boxes in order to reach a high swinging banana.

2. El dibujo representa un arao de pico ancho.

Arao de pico ancho



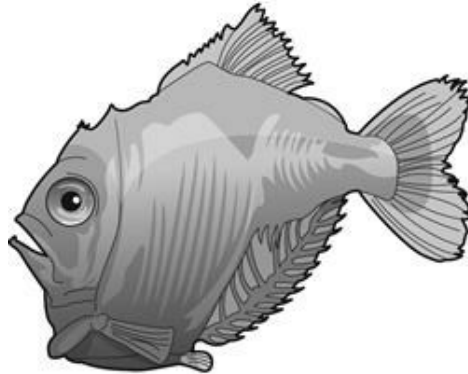
El arao de pico ancho pone su huevo en una cornisa del acantilado de mar. En orden para que los huevos sobrevivan y no caer de la cornisa, ha habido una adaptación en la forma del huevo. ¿Cuál forma de huevo es mejor adecuado para el ambiente del acantilado?

- A. 
- B. 
- C. 
- D. 

3. **Goldfish are fish commonly kept in aquariums. Which goldfish characteristic is an example of a learned trait?**
- A. thriving in specific water temperatures
  - B. losing the orange scales on the outside of the body
  - C. increasing in body size when given more space to grow
  - D. swimming to the top of the water when the lid is removed
4. **Black-and-white warblers migrate from their breeding range in Canada to southern Florida for the winter. Which is MOST likely to occur if environmental factors limit the number of female warblers that return to Canada?**
- A. Fewer young warblers will hatch in the spring.
  - B. Warbler breeding season will start earlier.
  - C. Warblers will have a larger selection of mates.
  - D. Genetic diversity will increase among warblers.
5. **Male peacocks have large brightly colored tail feathers. What is the MOST likely reason for this?**
- A. to attract potential mates
  - B. to distract potential predators
  - C. to help catch food
  - D. to preserve warmth
6. **Many animals hibernate to survive during certain times of the year. Which BEST explains the benefit of hibernation?**
- A. Hibernation helps an animal avoid being attacked by predators.
  - B. Hibernation allows an animal to keep its core body temperatures colder.
  - C. Hibernation decreases the need an animal has for oxygen when air is cold.
  - D. Hibernation reduces the need an animal has for food when resources are limited.

7. **The hatchet fish lives in the deeper zones of the ocean. Over time it has developed an upturned mouth to capture food floating down from the surface. Most hatchet fish also have patches around their mouths which seem to attract prey.**

**Hatchet Fish**



**Which BEST describes why the hatchet fish has been able to survive?**

- A. It has occupied the largest area.
  - B. It has eaten and eliminated smaller fish.
  - C. It has multiplied faster than other marine life.
  - D. It has adapted to feed on available food.
8. **Flocks of pelicans often fly in V-formation. The bird at the point of the V pushes air out of the way. That leading pelican works hard. But that bird's work lets the other birds fly in formation and use less energy as they fly.**

**Which of the following systems would MOST likely enable a flock to have the most efficient trip?**

- A. One pelican leads for the entire trip.
  - B. Two pelicans swap the lead for the entire trip.
  - C. The male pelicans take turns leading for the entire trip.
  - D. All of the pelicans take turns leading for the entire trip.
9. **Which of the following is an example of a behavioral adaptation?**
- A. hooves of a horse
  - B. migration of birds
  - C. a spider web
  - D. a bee hive

10. A study is conducted on two bee species: an arctic bee species and a temperate bee species. Scientists study the queen in each colony and measure the size of her ovaries. The data they collected is shown below.

<b>Bee Colony</b>	<b>Queen's Ovary Size (mm)</b>	<b>Days Until Colony Population Reaches Maximum Number of Bees</b>
Arctic Bee Colony 1	14	9
Temperate Bee Colony 1	8	19
Arctic Bee Colony 2	16	8
Temperate Bee Colony 2	7	22

What conclusion can be drawn from the results?

- A. The temperate bee species can produce colonies just as fast as the arctic bee.
  - B. The arctic bee species have reproductive adaptations that allow them to produce a colony faster.
  - C. The arctic bee species have behavioral adaptations that allow them to produce a colony faster.
  - D. The temperate bee species have behavioral adaptations that allow them to produce a colony just as fast as the arctic bee.
11. **Some behaviors affect only individuals. For example, when a snake moves to the shade to cool off, no other animals are affected. But some individual behaviors also affect other animals. Which individual behavior MOST influences the behavior of a population?**
- A. a bee dancing in a hive to show the location of nectar
  - B. a chimp grooming another member of its troop
  - C. a baby goose learning to follow its mother
  - D. a warbler foraging in one section of a tree

12. Isaac made the following list after reading about the social behavior of a particular species of animal.

### Animal Behaviors

1. Individuals work as a team to bring down much larger prey animals.
2. Individuals search for food in groups.
3. Individuals alert the group to danger.
4. Individuals care for each other's young.

What type of animal is Isaac MOST likely to be reading about?

- A. lizards
  - B. tigers
  - C. bison
  - D. wolves
13. Some populations of the fish species *Astyanax mexicanus* live in freshwater pools within deep underground caves in northeastern Mexico. Individuals in these populations are blind. Other populations of the same fish species live in surface waters and have fully functioning eyes. Over time, what will MOST likely happen to the sighted and blind types of *Astyanax mexicanus*?
- A. One type will become extinct.
  - B. They will become separate species.
  - C. One type will mutate to become more like the other.
  - D. They will interbreed and exhibit only the dominant trait.
14. Which of the following organisms would MOST likely thrive in a desert environment?

A.



B.



C.

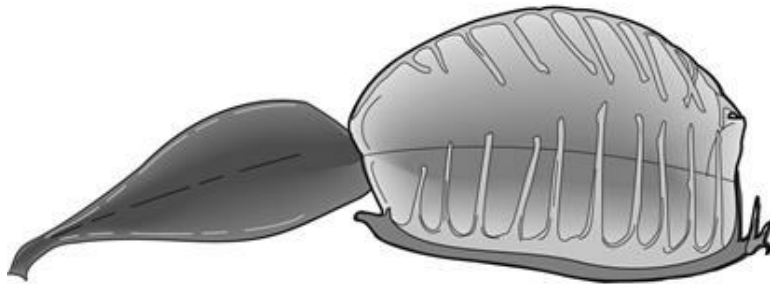


D.



15. Si una especie se desarrolló en un entorno con un campo gravitatorio más fuerte que el de la Tierra, ¿cuál adaptación sería MÁS beneficiosa para la especie?
- A. las extremidades delgadas y largas
  - B. las extremidades fuertes y largas
  - C. las extremidades delgadas y cortas
  - D. las extremidades fuertes y cortas
16. The Venus flytrap inhabits humid bogs. It is photosynthetic and makes glucose ( $C_6H_{12}O_6$ ) from carbon dioxide ( $CO_2$ ) and water ( $H_2O$ ). Additionally, the Venus flytrap catches, kills, and digests insects. This adaptation is used to supplement the Venus flytrap with a nutrient that is in short supply.

Venus Flytrap



Which is the MOST likely nutrient that is in short supply?

- A. carbon
  - B. hydrogen
  - C. nitrogen
  - D. water
17. Una cierta población de aves de la selva tiene casi todas las plumas verdes. Algunas de las aves en la población tienen plumas marrones. ¿Cuál cambio podría causar las aves con plumas marrón convertirse más común que las aves con plumas verdes?
- A. Los seres humanos cosechan la fruta que comen las aves.
  - B. Un depredador nuevo favorece aves con plumas verdes.
  - C. Las personas coleccionan las aves con plumas marrones como mascotas.
  - D. Una gran tormenta causa algunos árboles caer en la selva.

18. **Frecuentemente los organismos parecen similares en sus apariencias exteriores. Por ejemplo, una marsopa y un tiburón parecen cercanamente relacionados, pero no son. Ese tipo de semejanza es el resultado**
- A. de la evolución convergente.
  - B. de la radiación adaptativa.
  - C. de la selección artificial.
  - D. del equilibrio genético.
19. **Nutrients are produced in a plant's leaves during photosynthesis. How are these nutrients transported from the leaves to the roots for storage?**
- A. The stems carry the nutrients into the roots.
  - B. The xylem carries the nutrients from the leaves to the roots.
  - C. The phloem carries the nutrients from the leaves to the roots.
  - D. The cambium carries the nutrients to the roots from the leaves.
20. **There is evidence that pelicans have existed for 40 million years and are well adapted to their environment.**

**Pelican**



**For which function is the beak of this bird BEST suited?**

- A. to scoop up fish
- B. to crack open seeds
- C. to reach nectar in flowers
- D. to dig through tree bark for insects



21. Un entorno tranquilo comienza a experimentar una disminución gradual en la temperatura que resulta en los inviernos mucho más fríos que en los años anteriores. ¿Cuál variación **MÁS** probablemente sería seleccionada para un organismo que vive en este entorno?

- A. una que reduce la grasa y construye músculo magro
- B. una que produce más largos, más densos pelajes
- C. una que resulta en las orejas más grandes que permiten la pérdida de calor más eficiente
- D. una que requiere un organismo anidar en los árboles en lugar de en el suelo

22. ¿Cuál de los siguientes organismos **MÁS** probablemente prosperan en un ambiente desértico?

A.



B.



C.



D.



23. Scientists have not been able to create a vaccine for the Human Immunodeficiency Virus (HIV). What is the **best** explanation for this difficulty?

- A. Viruses have long lifespans.
- B. HIV is bacterial in structure.
- C. HIV has a high rate of mutation.
- D. Vaccines do not work against viruses.

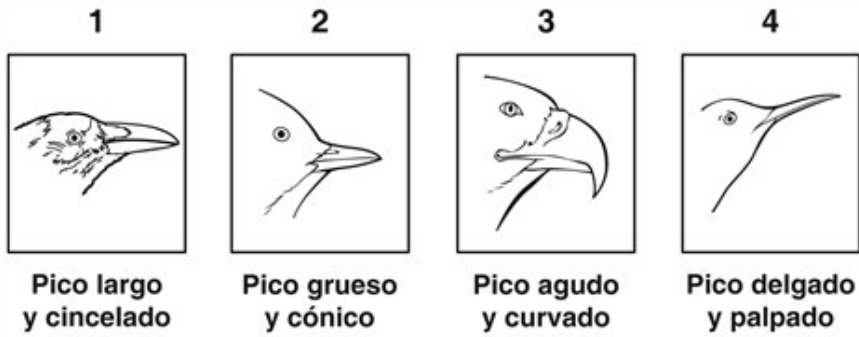
24. **Which characteristic would be MOST important for a plant to have to become a pioneer plant on a recovering beach?**
- A. ability to grow very large
  - B. long roots to find water
  - C. resistant to disturbances
  - D. big leaves to catch sunlight
25. **A flock of sheep is grazing in a meadow. A predator enters the meadow and begins stalking one sheep. Which behavior of the flock has the BEST chance of protecting the stalked sheep?**
- A. Each sheep runs in a different direction.
  - B. The whole flock runs away as a single group.
  - C. Small groups of sheep run in different directions.
  - D. The whole flock stands still as a single group.
26. **Los leones marinos a menudo nadan en las aguas del océano Pacífico con sus aletas que extienden sobre la superficie del agua. En otras ocasiones pueden ser en la tierra con sólo sus aletas en el agua. ¿Qué MÁS probablemente lograrían estos comportamientos?**
- A. atraer parejas
  - B. confundir depredadores
  - C. prevenir de la deshidratación
  - D. regular la temperatura corporal

27. How has the mountain ash tree evolved in order to allow its seeds to be spread far from their source?



- A. The seeds are brightly colored and attract animals to the plant.
  - B. The seeds have light stems that allow them to be carried by the wind.
  - C. The seeds are lightweight so animals can pick them up and carry them back to their nests.
  - D. The seeds are in berries that are eaten by birds and dropped as waste away from the plant.
28. During times of extremely low rainfall, some African frogs bury themselves in the mud at the surface of ponds that are drying up. This appears to be a survival technique. Which behavioral process **most likely** accounts for this practice?
- A. imprinting
  - B. conditioning
  - C. innate behavior
  - D. learned behavior

29. Un científico ha identificado cuatro aves con diferentes tipos de picos.



¿Cuál pico de ave numerado tiene la mejor adaptación para rasgar carne?

- A. 1
- B. 2
- C. 3
- D. 4

30. What adaptation do land plants use for reproduction?

- A. embryo
- B. petals
- C. pollen
- D. sepal