1. Why do large trees have a difficult time living in a tundra?

    A   A tundra is too hot for trees to grow large.

    B   Animals that live in a tundra destroy most vegetation.

    C   Flooding occurs too often in a tundra for large trees to grow.

    D   The soil in a tundra is too poor for large trees to grow.

2. Which organisms are producers?

    A   algae

    B   frogs

    C   insects

    D   snakes

3. What is a likely consequence of cutting down rain forests?

    A   a reduction in the amount of air pollution on Earth

    B   an increase in the number of plants living on Earth

    C   a reduction in the variety of organisms living on Earth

   D   an increase in the number of arctic ecosystems on Earth

4. Which effect does a decrease in sunlight have on a pond ecosystem?

    A   an increase in oxygen levels

    B   a decrease in the nitrogen levels

    C   an increase in the algae population

    D   a decrease in the algae population

5. Different types of birds within an environment may feed on different types of organisms. What is a benefit of this type of interaction?

    A   It allows different birds to build better nests.

    B   It reduces competition between different birds.

    C   It causes different birds to reproduce more often.

    D   It allows different birds to escape from predators.

6. A species of giant pandas lives only in central China. Bamboo, a tall, green tropical plant, is the main food source for these animals. Large areas of bamboo are being cut down in central China to make room for growing other crops.

    What will *most likely* happen to these giant pandas?

    A   They will become endangered or extinct.

    B   They will migrate to warmer areas of China.

    C   They will become carnivores.

    D   They will begin to live in caves.

7. Where will wind *most likely* cause erosion?

    A   swamps

    B   forests

    C   grasslands

    D   deserts

8. In which location along a river is erosion *most likely* to be the greatest?

    A   at the widest part

    B   at the flattest part

    C   at the place with the fastest flow

    D   at the place with the fewest rocks

9. Which *best* explains how soil is built up in flood plains?

    A   Farmers add fertilizer, which makes new soil.

    B   Plants break down into compost, which makes soil.

    C   Sediment is deposited by rivers during floods.

    D   Soil gets used up and the land becomes a desert.

10. What are scale models *best* used to identify?

    A   areas of high pollution

    B   animal habitats

    C   weather patterns

    D   landforms

11. Which process changes water from a liquid to a gas?

    A   precipitation

    B   evaporation

    C   cooling

    D   condensation

12. Two air masses with large differences in air pressure are near one another. What weather condition will ***most likely*** exist between the two air masses?

    A   low humidity

    B   high winds

    C   freezing temperatures

    D   clear skies

13. Which ***best*** describes how air pressure can be affected on hot summer days?

    A   The air expands and becomes less dense, creating areas of low pressure.

    B   The air expands and becomes less dense, creating areas of high pressure.

    C   The air expands and becomes more dense, creating areas of low pressure.

    D   The air expands and becomes more dense, creating areas of high pressure.

14. A student's school is located in a valley, and her house is on a nearby mountain. She wonders whether the average amount of rainfall at her school is different from the average amount at her house. She investigates by measuring the rainfall in each location. What tool will the student need to collect the information she needs?

    A   a thermometer

    B   a barometer

    C   a hygrometer

    D   a rain gauge

15. This diagram shows a ball rolling down an inclined plane. The position of the ball is labeled for each second it travels.
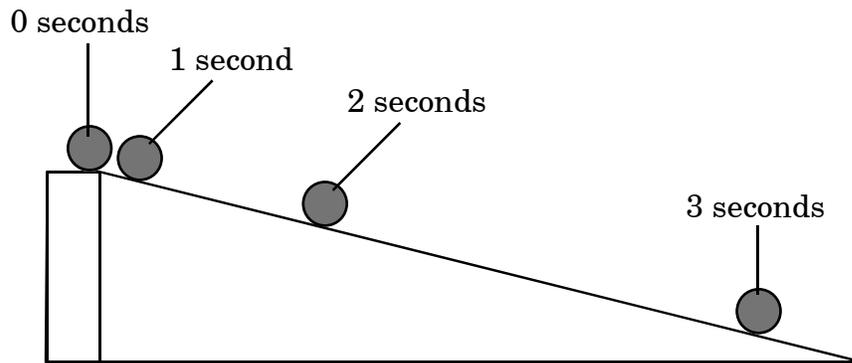
Which **best** describes the motion of the ball?

A   getting faster each second

B   getting slower each second

C   maintaining the same motion

D   constantly changing direction

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16. A dog runs 6 meters in one second. By the end of the next second, the dog has traveled an additional 4 meters. Which **best** describes the motion of the dog during the two seconds?

A   The dog slows down.

B   The dog comes to a stop.

C   The dog changes in mass.

D   The dog changes direction.

17. A person holds a heavy object in his hand and pushes the object slowly upward. Which **best** describes the forces acting on this object?

A   The pull of the person is the same as the push of gravity.

B   The pull of gravity is less than the upward push by the person.

C   The force holding up the object is less than the force of gravity.

D   The force applied by the person and the force of gravity are balanced.

18. In order for a pulley to work properly, it must be able to overcome which force?

   A   electricity

   B   gravity

   C   light

   D   heat

19. Which **best** describes how forces must interact for a kite to sail up into the air?

   A   The force of gravity must be equal to the force of the wind.

   B   The force of gravity must be greater than the force of the wind.

   C   The force of the wind must be greater than the force of gravity.

   D   The force of the person flying the kite must be equal to the force of the wind.

20. What is the ***most likely*** reason cars are designed with smooth surfaces?

   A   to overcome gravity

   B   to stop easier

   C   to reduce air resistance

   D   to keep the engine cool

End of Sample Items

Answers to EOG Grade 5 Science Sample Items

1. Objective 1.01
Describe and compare several common ecosystems (communities of organisms and their interaction with the environment).
Thinking Skill: Analyzing   **Correct Answer:**   D

2. Objective 1.02
Identify and analyze the functions of organisms within the population of the ecosystem:
Producers.
Consumers.
Decomposers.
Thinking Skill: Analyzing   **Correct Answer:**   A

3. Objective 1.03
Explain why an ecosystem can support a variety of organisms.
Thinking Skill: Applying   **Correct Answer:**   C

4. Objective 1.04
Discuss and determine the role of light, temperature, and soil composition in an ecosystem's capacity to support life.
Thinking Skill: Analyzing   **Correct Answer:**   D

5. Objective 1.05
Determine the interaction of organisms within an ecosystem.
Thinking Skill: Generating   **Correct Answer:**   B

6. Objective 1.06
Explain and evaluate some ways that humans affect ecosystems.
Habitat reaction due to development.
Pollutants.
Increased nutrients.
Thinking Skill: Generating   **Correct Answer:**   A

7. Objective 2.01
Identify and analyze forces that cause change in landforms over time including:
Water and Ice.
Wind.
Gravity.
Thinking Skill: Analyzing   **Correct Answer:**   D

Answers to EOG Grade 5 Science Sample Items

8. **Objective 2.03**
   Discuss and consider the wearing away and movement of rock and soil in erosion and its importance in forming:
   Canyons.
   Valleys.
   Meanders.
   Tributaries.
   Thinking Skill: Applying   **Correct Answer:** C

9. **Objective 2.04**
   Describe the deposition of eroded material and its importance in establishing landforms including:
   Deltas.
   Flood Plains.
   Thinking Skill: Organizing   **Correct Answer:** C

10. **Objective 2.06**
    Identify and use models, maps, and aerial photographs as ways of representing landforms.
    Thinking Skill: Applying   **Correct Answer:** D

11. **Objective 3.01**
    Investigate the water cycle including the processes of:
    Evaporation.
    Condensation.
    Precipitation.
    Run-off.
    Thinking Skill: Knowledge   **Correct Answer:** B

12. **Objective 3.02**
    Discuss and determine how the following are affected by predictable patterns of weather:
    Temperature.
    Wind direction and speed.
    Precipitation.
    Cloud cover.
    Air pressure.
    Thinking Skill: Generating   **Correct Answer:** B

Answers to EOG Grade 5 Science Sample Items

13. **Objective 3.02**
Discuss and determine how the following are affected by predictable patterns of weather:
Temperature.
Wind direction and speed.
Precipitation.
Cloud cover.
Air pressure.
Thinking Skill: Generating   **Correct Answer:** A

14. **Objective 3.05**
Compile and use weather data to establish a climate record and reveal any trends.
Thinking Skill: Applying   **Correct Answer:** D

15. **Objective 4.01**
Determine the motion of an object by following and measuring its position over time.
Thinking Skill: Analyzing   **Correct Answer:** A

16. **Objective 4.01**
Determine the motion of an object by following and measuring its position over time.
Thinking Skill: Analyzing   **Correct Answer:** A

17. **Objective 4.02**
Evaluate how pushing or pulling forces can change the position and motion of an object.
Thinking Skill: Analyzing   **Correct Answer:** B

18. **Objective 4.03**
Explain how energy is needed to make machines move.
Moving air.
Gravity.
Thinking Skill: Applying   **Correct Answer:** B

19. **Objective 4.04**
Determine that an unbalanced force is needed to move an object or change its direction.
Thinking Skill: Analyzing   **Correct Answer:** C

20. **Objective 4.06**
Explain how energy is needed to make machines move.
Moving air.
Gravity.
Thinking Skill: Analyzing   **Correct Answer:** C