Georgia Milestones

4TH GRADE PRE-TEST

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1. **What role do deer play in their environment?**
   A. Consumer
   B. Decomposer
   C. Predator
   D. Producer

2. **Swamp rabbits feed on grasses and other plants in swamps. Bobcats feed on swamp rabbits. Land development removes many of the grasses and plants eaten by the swamp rabbits.**

   How would this change MOST LIKELY affect the animals in this community?

   A. The rabbits would compete with the bobcats for food.
   B. The bobcats would not be affected because they do not eat plants.
   C. The rabbits would have less food because the bobcats would leave.
   D. The bobcats would have less food because there would be fewer rabbits.

3. **The Eastern box turtle is found throughout Georgia. Some of its predators include raccoons, skunks, coyotes, and foxes.**

   Which adaptation BEST protects the turtle against predators?

   A. Tough skin
   B. Webbed toes
   C. Hard outer shell
   D. Slow movement

4. **The Tasmanian tiger lived in wetlands, grasslands, and forests in Australia. It was about five feet long with light brown fur and stripes on its back. It was a type of mammal with a pouch for carrying its young. Farmers hunted the Tasmanian tiger to protect their livestock.**

   Which statement helps explain why the Tasmanian tiger became extinct?

   A. It was a type of mammal with a pouch for carrying its young.
   B. Farmers hunted the Tasmanian tiger to protect their livestock.
   C. It was about five feet long with light brown fur and stripes on its back.
   D. The Tasmanian tiger lived in wetlands, grasslands, and forests in Australia.

5. **In the water cycle, clouds form when forces raise water vapor particles high into the air. How do clouds form from rising water vapor?**
   A. The water vapor particles speed up and evaporate into the air.
   B. The water vapor particles slow down and evaporate into the air.
   C. The water vapor particles lose heat and condense around particles of dust.
   D. The water vapor particles gain heat and condense around particles of dust.
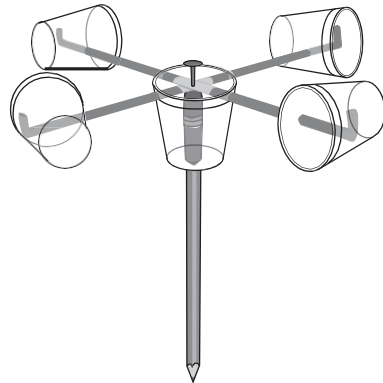
6. **A class studied this weather map of Georgia.**
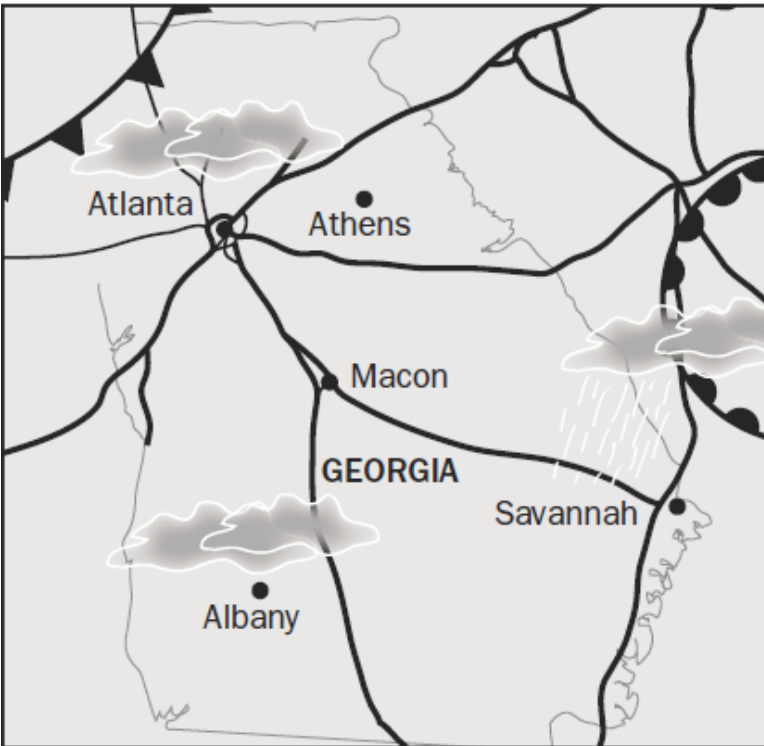
   Based on the weather map, which of these BEST describes Atlanta's current weather?

   A. Cold and rainy
   B. Warm and rainy
   C. Cold and cloudy
   D. Warm and cloudy

7. A student uses items found in the classroom to create the instrument shown, which measures a certain weather characteristic.

Which weather characteristic does this instrument measure?

A. Wind speed
B. Wind direction
C. Amount of rain
D. Atmospheric pressure

8. A student measured the temperature and rainfall for one week in September. She recorded her data in a table.

Day of the Week	Highest Daily Temperature (°F/°C)	Amount of Rainfall (cm)
Sunday	88/31	0
Monday	86/30	0
Tuesday	86/30	0.889
Wednesday	85/29	1.27
Thursday	85/29	2.16
Friday	84/28	2.54
Saturday	?/?	?

If no new fronts are expected, what will Saturday's weather MOST LIKELY be like?

A. Warm and rainy
B. Cool and rainy
C. Warm and dry
D. Cool and dry

9. **A woman needs to load a piece of furniture onto the back of her truck. She can choose one of the following to help her with the task: a lever, an inclined plane, a wedge, or a pulley.**

   Which of these is the BEST choice for decreasing the force needed to load the furniture?

   A. Lever
   B. Pulley
   C. Wedge
   D. Inclined plane

10. **A student stretches a rubber band between two push pins. He starts a toy car by pulling it back against the rubber band and letting it go. He records the distance the car travels. He does the same thing for cars in three other sizes. The rubber band pushes each car with the same force.**

Toy Car	Distance Traveled (in meters)
Car 1	2
Car 2	2.5
Car 3	3
Car 4	1

   Which toy car has the GREATEST mass?

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

11. **Three students are investigating force using a wagon. One student sits in the wagon, and another student moves the wagon by pulling it by the handle or pushing it from behind.**

   Which of these would cause the wagon to move faster?

   A. The wagon is pulled with less force.
   B. The third student sits in the wagon.
   C. The wagon is pushed with less force.
   D. The third student helps push the wagon.

12. A student tosses a ball to another student. That student uses a bat to hit the ball high into the air. The ball drops back down, and the student catches it. The student rolls the ball across the sidewalk to the other student.

Which event is caused by gravitational force?

A. A student tosses a ball to another student.
B. The ball drops back down, and the student catches it.
C. That student uses a bat to hit the ball high into the air.
D. The student rolls the ball across the sidewalk to the other student.

13. A student observes stars in the night sky and sketches the portion of sky he can see between two trees in his backyard. Two hours later, he again sketches the portion of the sky he can see between the two trees. The sketches are different.

Which statement is the BEST possible explanation for this difference?

A. Throughout the night, stars move in relation to one another.
B. Stars and their arrangements move across the sky during the night.
C. Stars are too far away to recognize any sort of pattern among them.
D. Due to Earth's rotation, the pattern of stars between the trees changes

14. Which statement describing the relationship between planets and stars is true?

A. Stars orbit some planets.
B. Planets orbit the Sun and stars do not.
C. Planets create light, and stars reflect light energy.
D. The sizes of planets are directly related to the sizes of nearby stars.

15. Which of these causes the phases of the Moon?

A. Earth's orbit around the Sun.
B. The Moon's orbit around Earth.
C. The orbit of the Sun as it orbits Earth.
D. The orbit of the Moon as it orbits the Sun.

16. The model shows Earth during part of its orbit around the Sun.
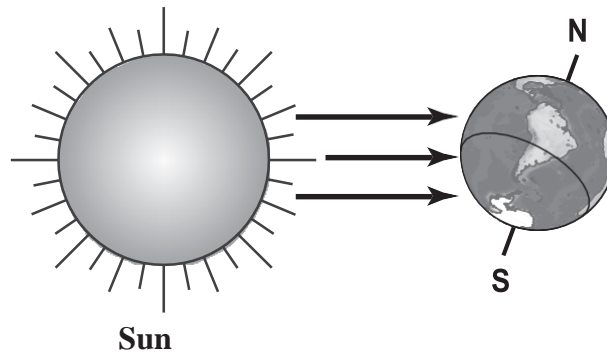
**What is happening in the Southern Hemisphere?**

A. It is experiencing fall.
B. It is experiencing spring.
C. It is experiencing winter.
D. It is experiencing summer

17. A student shines a flashlight at a mirror in front of her. She notices that a circle of light appears on the wall behind her.

Which statement BEST explains this observation?

A. The mirror reflects the light.
B. The mirror scatters the light.
C. Light bounces over the mirror.
D. Light passes through the mirror.

18. The model shows how light travels through a piece of glass that has a certain shape.

Light Rays
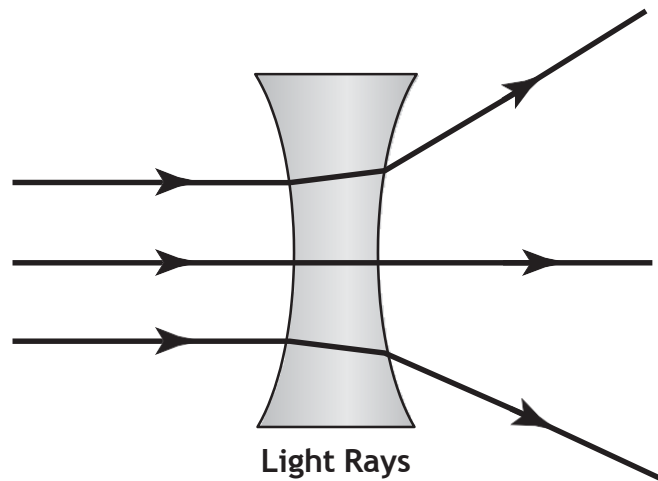
Which of these BEST explains this type of lens and how it could be used in a flashlight?

A. This is a prism that could be used to make a flashlight look dimmer.
B. This is a convex lens that could be used to make a flashlight look brighter.
C. This is a prism that could be used to make a flashlight show different colors.
D. This is a concave lens that could be used to make a flashlight shine over a bigger space.

19. A student stretches a rubber band across the top of an empty box. What will happen if she plucks the rubber band?

A. It will vibrate and make a sound.
B. It will not move or make a sound.
C. It will vibrate without making a sound.
D. It will not move, but it will make a sound.

20. A student observes that different lengths of pipe produce different pitches when he taps them. He notices that one pipe produces a lower pitch than the others.

Which statement BEST explains this observation?

A. The low-pitch pipe is longer than the other pipes.
B. The student tapped softest on the low-pitch pipe.
C. The student tapped hardest on the low-pitch pipe.
D. The low-pitch pipe is shorter than the other pipes.

Question	Answer	DOK	Domain	Topic	Indicator(s)
1	A	2	Life Science	Roles	D, P
2	D	3	Life Science	Community	P, Di
3	C	2	Life Science	Adaptations	B, D
4	B	2	Life Science	Extinct	P
5	C	2	Earth Science	Water Cycle Weather	Di
6	D	2	Earth Science	Weather Map	D, P
7	A	2	Earth Science	Weather Instrument	D
8	A	3	Earth Science	Weather Table	P, Di
9	D	2	Physical Science	Simple Machines	D, P
10	D	2	Physical Science	Force and Mass	P, Di
11	D	3	Physical Science	Force	P, Di
12	B	2	Physical Science	Gravitational Force	D, P
13	D	2	Earth Science	Stars	P, Di
14	B	2	Earth Science	Stars vs. Planets	D, P
15	B	2	Earth Science	Moon Phases	D, P
16	D	3	Earth Science	Seasons and Revolution	D, P, Di
17	A	2	Physical Science	Reflection	B, D
18	D	2	Physical Science	Refraction	P
19	A	2	Physical Science	Vibrations and Sound	D
20	A	3	Physical Science	Vibrations and Pitch	P, Di

B = Beginning
D = Developing
P = Proficient
Di = Distinguished