

# National Science League – 2022

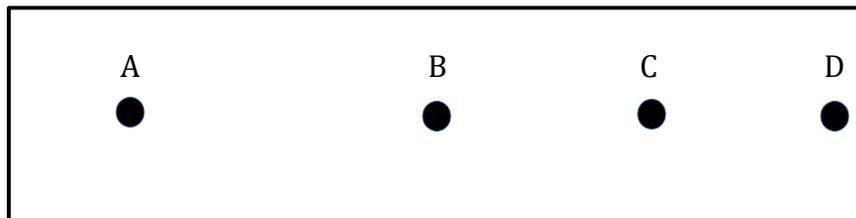
## Grade 3 and 4

**Directions:** On the answer sheet, write the letter of the choice that best answers/completes the question.

- Which of these planets is closest to the sun?  
A. Venus  
B. Neptune  
C. Mercury  
D. Saturn
- About 70% of the surface of the Earth is covered by \_\_\_\_\_.  
A. soil  
B. rock  
C. water  
D. ice
- Your heart is part of the \_\_\_\_\_.  
A. digestive system  
B. circulatory system  
C. respiratory system  
D. excretory system
- Clouds form when water vapor in the air \_\_\_\_\_.  
A. condenses  
B. evaporates  
C. precipitates  
D. boils
- Which of these is the best source of carbohydrates?  
A. a piece of orange  
B. a piece of celery  
C. a piece of chicken  
D. a piece of bread
- Which of these is the best conductor of heat?  
A. plastic  
B. copper  
C. wood  
D. rubber
- Steam forms when water \_\_\_\_\_.  
A. melts  
B. freezes  
C. boils  
D. condenses
- An example of a change that happens in a short period of time is \_\_\_\_\_.  
A. the sun warming up the Earth  
B. erosion of the land by a river  
C. water filling up a reservoir  
D. an earthquake
- A meter stick can be used by itself to find \_\_\_\_\_.  
A. the size of your room  
B. the weight of a person  
C. the amount of milk in a glass  
D. how fast a ball is rolling along the ground
- In order to start growing, seeds need \_\_\_\_\_.  
A. carbon dioxide  
B. water  
C. soil  
D. fertilizer

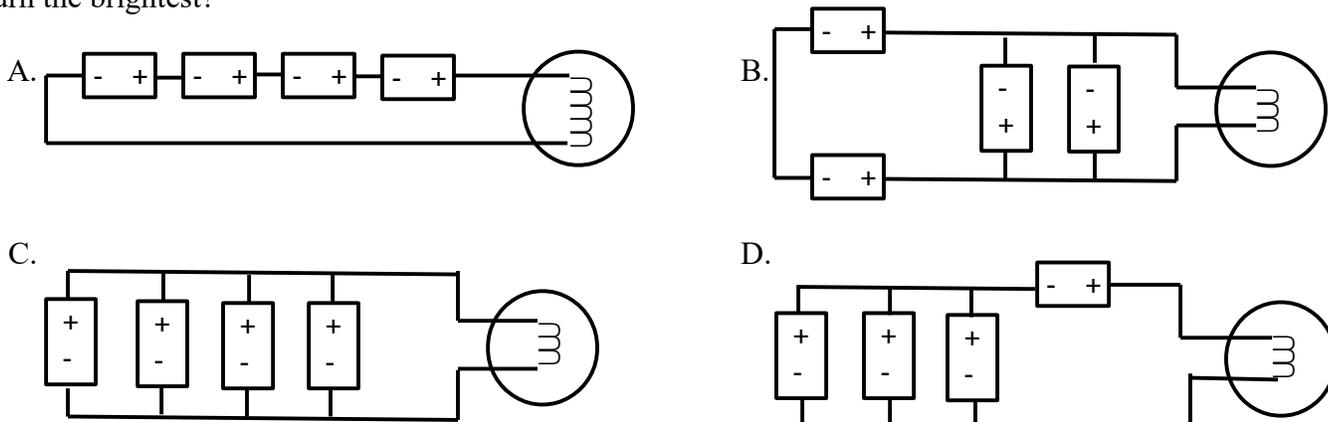
11. Which energy source is renewable?  
A. coal  
B. oil  
C. natural gas  
D. solar
12. The amount of water vapor in the air is measured with \_\_\_\_\_.  
A. an anemometer  
B. a barometer  
C. a hygrometer  
D. a thermometer
13. Which of these is an element?  
A. gold  
B. water  
C. sand  
D. sugar
14. In which rock are dinosaur fossils most likely to be found?  
A. igneous rock formed at the surface of the Earth  
B. sedimentary rock  
C. granite rock  
D. igneous rock formed under the ground
15. An animal living in a cave is least likely to use its sense of \_\_\_\_\_.  
A. touch  
B. sight  
C. smell  
D. hearing
16. Which of these changes chemical energy to electrical energy?  
A. a motor  
B. a generator  
C. a light bulb  
D. a battery
17. In most green plants, the food is produced in the \_\_\_\_\_.  
A. flowers  
B. leaves  
C. roots  
D. stems
18. Amphibians are animals that \_\_\_\_\_.  
A. are covered with thick scales  
B. have a body temperature that does not change  
C. can live both on land and in water  
D. are close relatives of the dinosaurs
19. All living things \_\_\_\_\_.  
A. can move from place to place  
B. are made up of cells  
C. have a heart that pumps blood  
D. are able to make their own food
20. Which is a true statement about our moon?  
A. It rises and sets at a different time each night.  
B. It has the same kind of atmosphere as the Earth.  
C. It takes 15 days to revolve around the Earth once.  
D. It is equal in size to the Earth.

21. Water is a solid at \_\_\_\_\_.
- A. 32 degrees Celsius  
B. 100 degrees Fahrenheit  
C. 212 degrees Fahrenheit  
D. 0 degrees Celsius
22. Plants use this gas to make their food. What gas is it?
- A. oxygen  
B. hydrogen  
C. carbon dioxide  
D. nitrogen
23. Which of these is part of your nervous system?
- A. the spleen  
B. the brain  
C. the liver  
D. the lungs
24. Which of these is a type of rock that is made during a volcanic eruption?
- A. pumice  
B. granite  
C. sandstone  
D. limestone
25. An example of a solution is \_\_\_\_\_.
- A. starch and water  
B. oil and water  
C. sand and water  
D. table salt and water
26. Which of the following can be a decomposer in a forest food chain?
- A. plants  
B. mice  
C. mold or bacteria  
D. deer
27. The tides in the oceans are caused by the \_\_\_\_\_.
- A. revolution of the Earth around the sun  
B. gravitational pull of the sun and the moon  
C. uneven heating of the oceans by the sun  
D. wind blowing over the surface of the oceans
28. Most of the food you eat is digested in your \_\_\_\_\_.
- A. stomach  
B. pancreas  
C. liver  
D. small intestine
29. At which point would this bar magnet pick up the most paper clips?

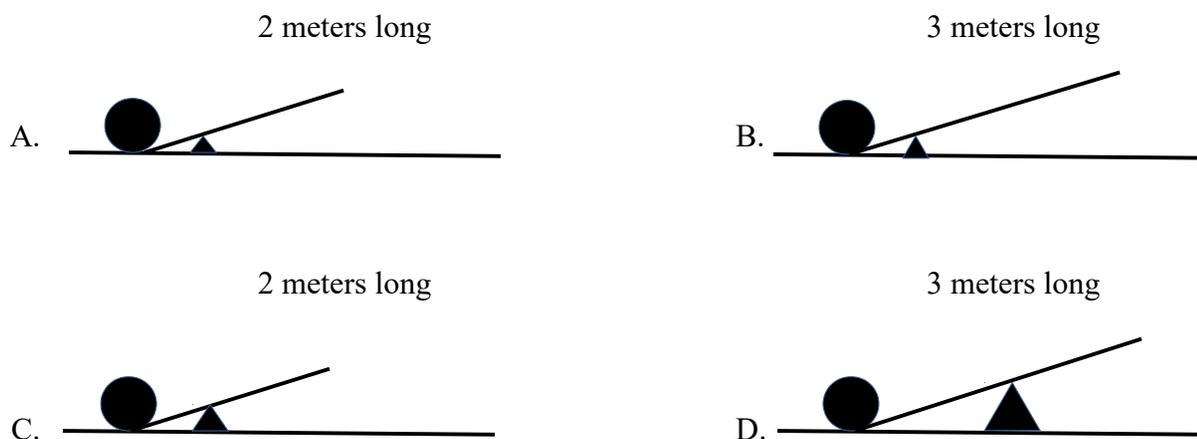


- A. Point A  
B. Point B  
C. Point C  
D. Point D

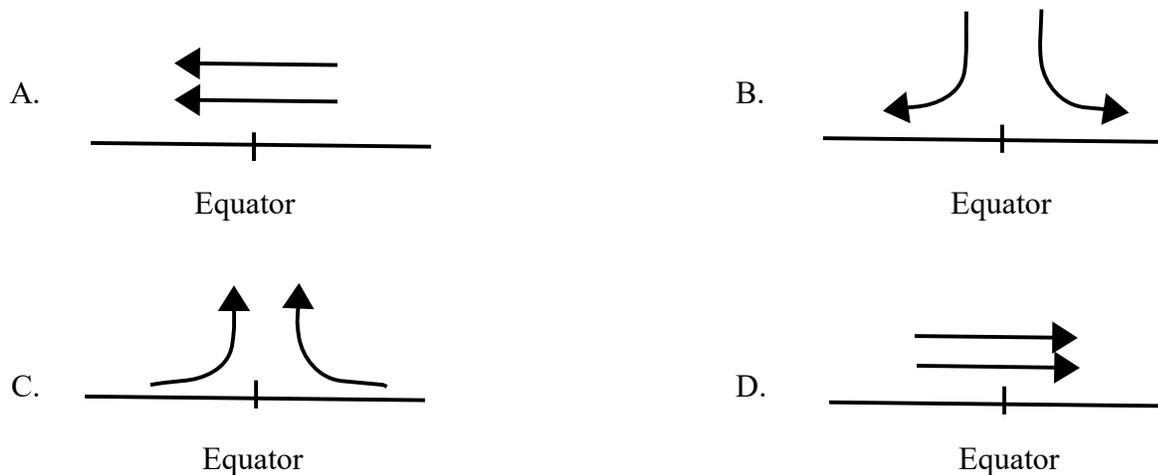
30. Which diagram shows the correct way to connect the 4 six-volt batteries to make the 24-volt bulb burn the brightest?



31. Which lever would make it easiest to move the large rock?



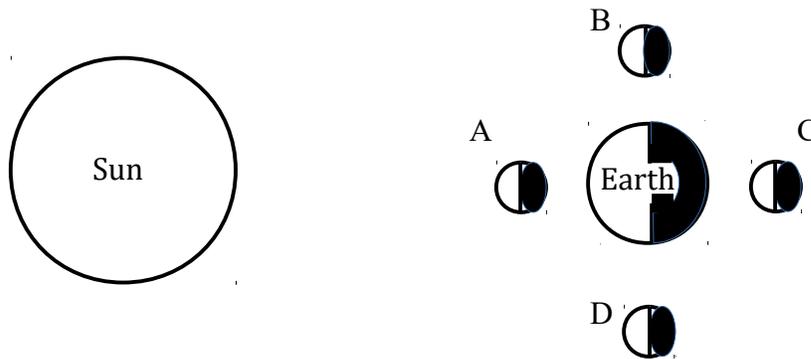
32. Which diagram correctly shows the wind direction over the Equator?



33. The body of an insect is divided into \_\_\_\_\_.
- A. two parts
  - B. three parts
  - C. four parts
  - D. five parts
34. On which part of your eye are images formed?
- A. iris
  - B. lens
  - C. cornea
  - D. retina

USE THE FOLLOWING INFORMATION TO HELP YOU ANSWER QUESTION 35:

(Note: This diagram is not drawn to scale.)



35. At which location in its orbit in the diagram above would the moon not be seen from Earth?
- A. A
  - B. B
  - C. C
  - D. D