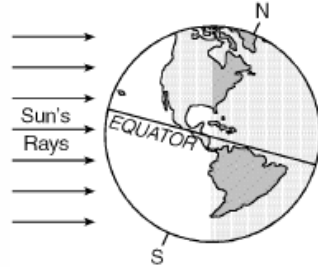


Name: \_\_\_\_\_

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

### 6<sup>th</sup> Grade Science MSL Practice

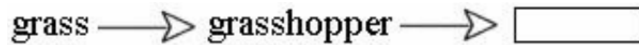
1. The diagram below represents the Earth in space. (6.E.1.1)



Which date is most likely represented by the diagram?

- A. May 4
- B. September 2
- C. June 6
- D. December 30

2. Which animal listed below would complete this food chain? (6.L.2.1)



- A. fly
- B. lizard
- C. butterfly
- D. hummingbird

3. Look at the picture and then fill in the blank. (6.L.2.1)



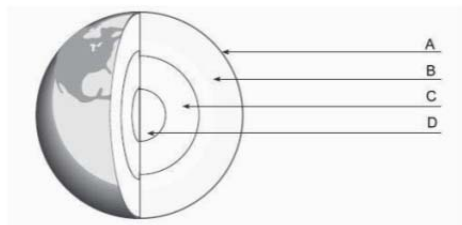
This picture shows \_\_\_\_\_.

- A. an environment
- B. a growing animal
- C. a food chain
- D. a life cycle

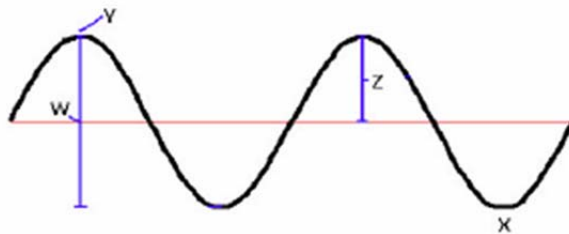
4. In Figure 1, label B represents the (6.E.2.1)

- A. outer core.
- B. inner core.
- C. crust.
- D. mantle.

**Figure 1**

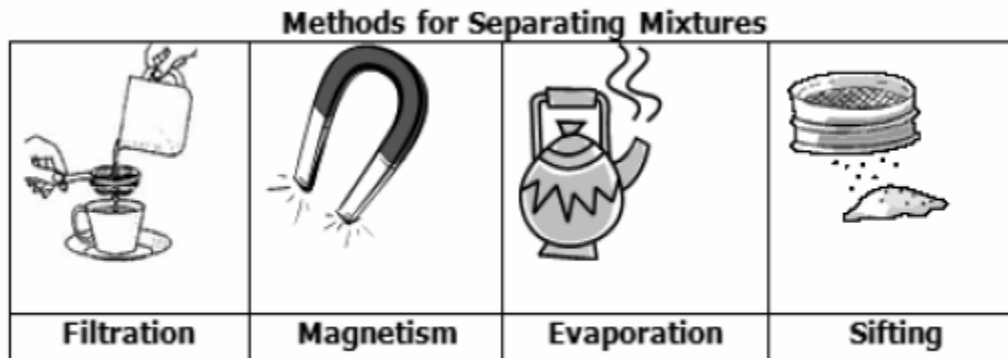


5. Earthquakes are more damaging to structures closest to the (6.E.2.2)
- seismic edge.
  - most porous rock.
  - epicenter.
  - longitudinal wave.
6. What is the **best** explanation for why the inner core of Earth is solid metal? (6.E.2.1)
- The immense pressure of the weight of Earth prevents it from melting.
  - The inner core is too cold to melt.
  - The inner core is composed of materials that remain solid at incredibly high temperatures.
  - None of the above is correct.
7. The place where two plates come together is known as a (6.E.2.2)
- transform boundary.
  - divergent boundary.
  - convergent boundary.
  - rift valley.
8. Which **best** describes how metamorphic rock is formed? (6.E.2.3)
- rock melts into magma, then cools
  - water evaporates, leaving behind small particles of rock
  - rocks change into new types of rock due to heat and pressure
  - pieces of rock, plants, and other materials get pressed together, forming layers
9. Which letter corresponds to the **crest** of the wave? (6.P.1.1)



- Z
  - W
  - X
  - Y
10. Which is a list of **abiotic** parts of an environment? (6.L.2.3)
- soil, leaves, and flowers
  - soil, rocks, and water
  - rocks, leaves, and water
  - water, rocks, and tadpoles

11. Tim, Mimi, Bob, and Wes are working on a presentation for science class. They want to demonstrate methods for separating mixtures and will bring the supplies needed for their demonstration. The chart shows the 4 methods that they can use.



- If the students use sugar water, which separation method should be used? (6.P.3.3)
- A. evaporation
  - B. filtration
  - C. magnetism
  - D. sifting
12. Heat will transfer from: (6.P.3.1)
- A. an ice pack to a hot pizza.
  - B. a cold pool to a warm person sitting in it.
  - C. a warm cookie to the ice cream on top of it.
  - D. a cold window to a hand leaning on it.
13. The **most** important source of energy that heats the surface of Earth comes from: (6.L.2.1)
- A. volcanic eruptions.
  - B. geysers.
  - C. the Sun.
  - D. the core.
14. Heat flow is a transfer of: (6.P.3.1)
- A. energy.
  - B. mass.
  - C. atoms.
  - D. waves.
15. Convection involves the movement of heat energy in: (6.P.3.1)
- A. gases and liquids.
  - B. liquids and solids.
  - C. solids and gases.
  - D. gases, solids, and liquids.

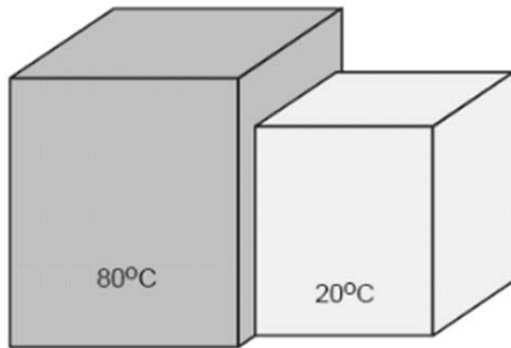
16. Warm air rises above cool air because: (6.P.3.1)

- A. warm air is less dense than cool air.
- B. warm air is more dense than cool air.
- C. warm air has the same density as cool air.
- D. warm air has more weight than cool air.

17. What is the **main** cause of seasons on Earth? (6.E.1.1)

- A. the distance between Earth and the sun
- B. the tilt of Earth's axis
- C. the orbit of Earth
- D. the rotation of Earth

18. A block that is  $80^{\circ}\text{C}$  is placed next to a  $20^{\circ}\text{C}$  block. (6.P.3.3)



The warmer block heats the cooler block by the process of:

- A. convection.
- B. conduction.
- C. A and B.
- D. neither A nor B.

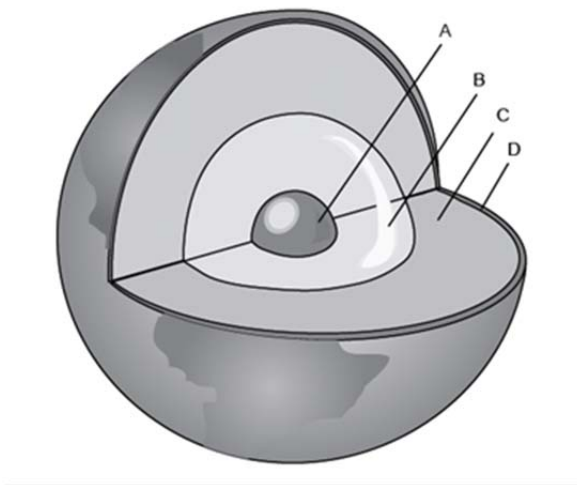
19. Heat energy is transferred from the Sun to a cat sleeping on a sunny windowsill by: (6.P.3.1)



- A. convection.
- B. conduction.
- C. radiation.
- D. combustion.

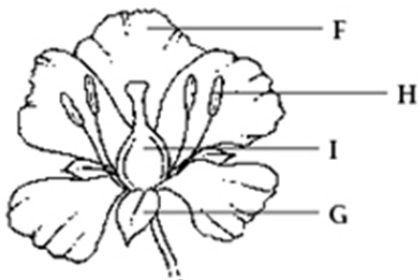
20. Why would a person be cooler on a hot sunny day wearing a light colored t-shirt and shorts than in a dark colored t-shirt and shorts made out of the same material? (6.P.3.3)
- A. dark colors are hotter.
  - B. dark colors absorb more radiation from the sun.
  - C. dark colors reflect more radiation from the sun.
  - D. solar radiation avoids light colored objects.

Use the following diagram for questions 21 and 22.



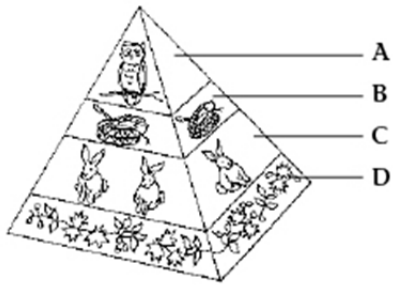
21. In the diagram above, which letter indicates Earth's crust? (6.E.2.1)
- A. A
  - B. B
  - C. C
  - D. D
22. In the diagram above, which letter indicates the hottest layer of Earth? (6.E.2.2)
- A. A
  - B. B
  - C. C
  - D. D
23. Where does the energy to move Earth's plates come from? (6.E.1.1)
- A. radiation from the Sun
  - B. heat generated in the Earth's core
  - C. wave energy in the oceans
  - D. heat energy from chemical reactions in the crust

24. Look at the diagram below. Which letter identifies the ovary of the flower? (6.L.1.1)



- A. F
- B. G
- C. H
- D. I

25. Look at the energy pyramid below. Where is the least amount of energy? (6.L.2.1)



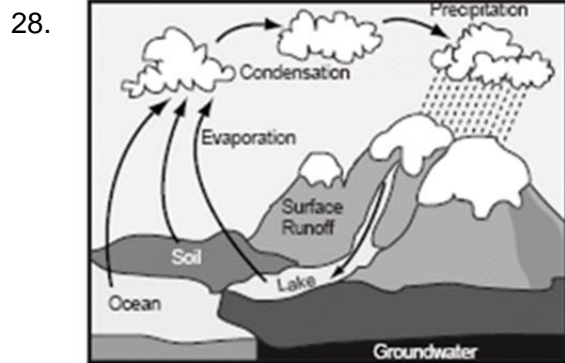
- A. A
- B. B
- C. C
- D. D

26. How do herbivores obtain energy? (6.L.2.1)

- A. They eat plants.
- B. They eat animals.
- C. They eat animals and plants.
- D. They eat the food they make.

27. Heat energy moves through Earth's mantle primarily by: (6.E.1.1 & 6.P.3.1)

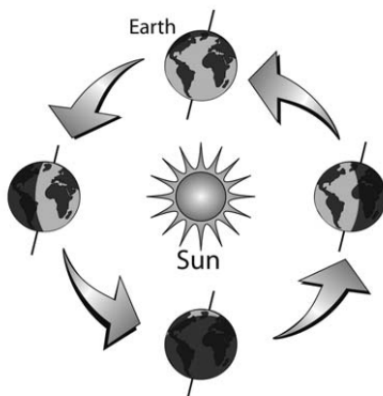
- A. conduction
- B. convection
- C. radiation
- D. earthquake waves



Which part of the water cycle most directly depends on energy from the Sun? (6.L.2.1)

- A. evaporation
- B. condensation
- C. precipitation
- D. runoff

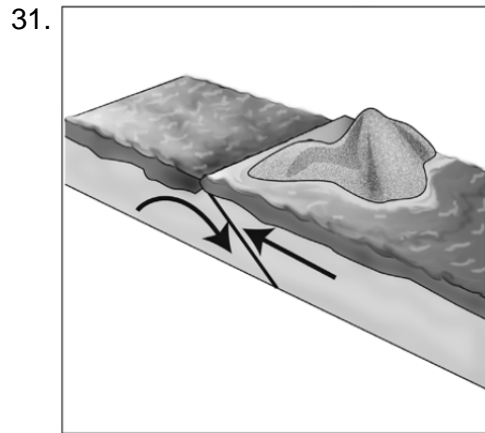
29.



What motion of the Earth does the picture on the left best illustrate? (6.E.1.1)

- A. Earth's rotation
- B. Earth's alternation
- C. Earth's constellation
- D. Earth's revolution

30. What causes a solar eclipse? (6.E.1.1)
- A. The Moon passes between the Sun and the Earth.
  - B. The Earth passes between the Moon and the Sun.
  - C. The Sun passes between the Moon and the Earth.
  - D. Another planet passes between the Sun and the Earth.



What is featured in this illustration? (6.E.2.2)

- A. a syncline fold
  - B. an anticline fold
  - C. a subduction zone
  - D. a transform boundary
32. Which of the following correctly lists the “gas giants” in order from **smallest** to **largest**? (6.E.1.2)
- A. Saturn, Jupiter, Neptune, Uranus
  - B. Neptune, Uranus, Jupiter, Saturn
  - C. Neptune, Uranus, Saturn, Jupiter
  - D. Uranus, Saturn, Jupiter, Neptune
33. **About** how many days after the spring equinox will the fall equinox occur? (6.E.1.2)
- A. 90 days
  - B. 180 days
  - C. 270 days
  - D. 360 days
34. What is the only type of rock that is **NOT** produced by either heating or cooling? (6.E.2.1)
- A. igneous
  - B. sedimentary
  - C. metamorphic
  - D. magma
35. During the first day of which season does North Carolina experience its **longest** day? (6.E.1.1)
- A. Winter
  - B. Spring
  - C. Summer
  - D. Fall

36.

### The Electromagnetic Spectrum

Radio Waves	Microwaves	Infrared Light	Visible Light	UV Light	X-Rays	Gamma Rays
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How do radio waves compare to visible light? (6.P.1.2)

- A. Radio waves have longer wavelengths than visible light.
- B. Radio waves have shorter wavelengths than visible light.
- C. Radio waves travel faster than visible light.
- D. Radio waves travel slower than visible light.

37. A pot is heated on a stove. Which process causes the metal handle of the pot to also become hot? (6.P.3.1)

- A. combustion
- B. convection
- C. radiation
- D. conduction

38. Which is an example of a different substance being formed? (6.P.2.3)

- A. glass breaking
- B. metal melting
- C. water freezing
- D. wood burning

39. A student notices that an inflated balloon gets larger when it is warmed by a lamp. Why did the balloon get larger? Explain what happened to the molecules in the balloon as the balloon got larger. (6.P.3.3)

40. Miranda lives in the southern hemisphere. What season does she most likely experience in August? Explain why it is **NOT** the same season as in the northern hemisphere. (6.E.1.1)