



Student ID/Username:

Full Name:

Group/CRN:

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College:

Grade6

Course Name:

G6.SCI - Science G6

Area/Branch Name:

Exam:

Grade 6 – General – Science Inspire –...

Activity Type:

Final

Time Spent:

Total Marks:

106/120

Q.1: .

Mark(s): 0/5

A student is asked to describe the climate in his region. Which statement **correctly** describes climate?

a.

"It's cold and raining outside."

b.

"It rains about 20 inches a year here."

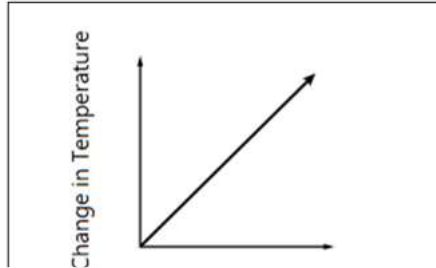
c.

"The wind blew my trash can across the street."

d.

"It snowed 18 inches this week."

The surface area is one of the factors that determine how much thermal energy transfers out of a substance to its environment during a fixed period of time. Which of the following statements best describes the information in the graph below?



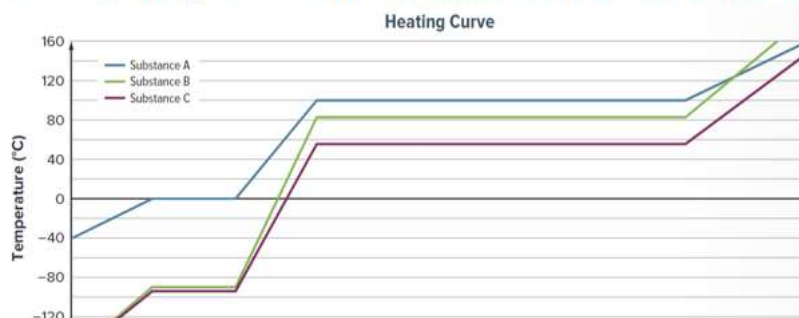
- a. As the surface area increases, the change in temperature will decrease
- b. As the surface area decreases, the change in temperature will increase
- c. There is an inversely proportional relationship between the surface area and the temperature change
- d. As the surface area increases, the change in temperature will increase

Q.3: .

Mark(s): 5/5

The next figure shows the heating curve of three different substances.

What is the correct ascending arrangement of the substances according to their boiling point?



a. C, B, A

b. A, B, C

c. C, A, B

d. B, A, C

Q.4: .

Mark(s): 5/5

A student walks barefoot on a hot, sunny day from a sandy beach to a parking lot paved with dark asphalt. Which of the following is correct?

a. The sand and the asphalt have the same albedo

b. The student's feet will not feel a temperature difference

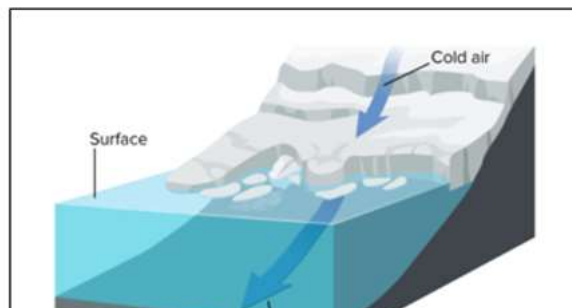
c. The student's feet will get less hot as he walks from the sand to the parking lot

d. The student's feet will get very hot as he walks from the sand to the parking lot

Which of the following is **not true** regarding the particles' melting and boiling points?

- a. Every substance has its own melting and boiling points
- b. The greater the attractions between particles, the higher the melting and boiling points
- c. The type of particles that make up a substance affect how much energy is needed to cause a phase change
- d. The greater the attractions between particles, the lower the melting and boiling points

The diagram models the formation of a density current in the ocean. During the formation of a density current, water sinks as it becomes denser. Which statement best explains why this happens to ocean water?

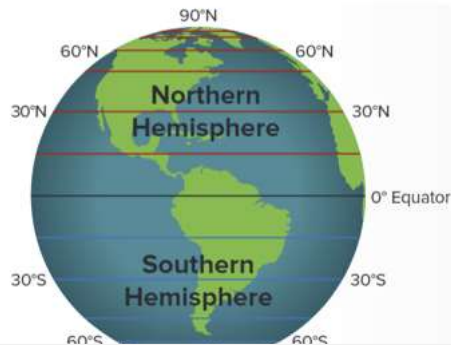


- a. Due to a decrease in airflow across the surface and a decrease in temperature
- b. Due to an increase in temperature and a decrease in airflow across the surface
- c. Due to an increase in temperature and a decrease in salinity of the water near the surface
- d. Due to an increase in salinity and a decrease in temperature of the water near the surface

Q.7: .

Mark(s): 5/5

The graph shows the lines of latitude on Earth. At which part of Earth does the sunlight strike at nearly 90°?



- a. The Equator
- b. The north pole
- c. The south pole
- d. The northern hemisphere

Q.8: . ***** BONUS *****

Mark(s): 4/4

Which of the following explains why Low-pressure systems is often associated with cloudy weather and precipitation?

- a. The air masses rise, causing water vapor condensation
- b. The air masses sink, making it difficult for clouds to form
- c. The air masses rise, causing wind that blows away the clouds
- d. The air masses sink, forcing air to move from low pressure to high pressure

Which of the following is **not true** regarding the microwave shown below?



- a. The microwave is the source object
- b. The microwave is an example of an energy system
- c. The food is the receiver object
- d. There is no energy transfer to the environment at all

Which of the following drives the movement of water in the water cycle?

- a. Sunlight and gravity
- b. Gravity and electricity
- c. Sunlight and magnetism
- d. Electricity and magnetism

Q.11: .

Mark(s): 5/5

Which pathway of processes would explain how a water molecule from the stream could end up in an ice s

a. Evaporation, condensation, crystallization, precipitation

b. Evaporation, condensation, transpiration, crystallization

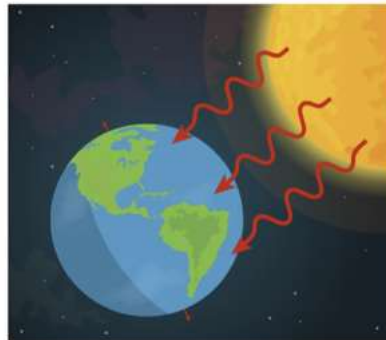
c. Evaporation, crystallization, precipitation, condensation

d. Evaporation, respiration, crystallization, transpiration

Q.12: .

Mark(s): 5/5

The figure below represents the Sun and the Earth. Which type of energy transfer allows the Sun to warm t



a. Radiation

b. Conduction

c. Convection

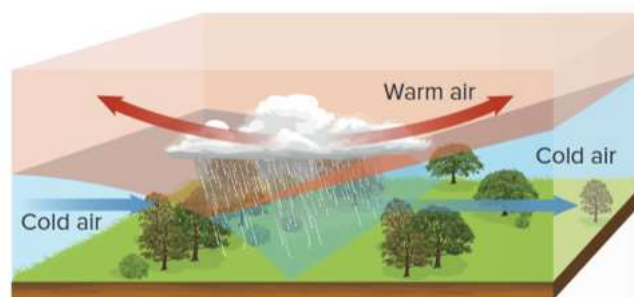
d. Transmission

As the image below shows, the frying pan is placed on the heat source. Which of the following represents how the energy transfers from the heat source to the pan?



- a. Radiation
- b. Conduction
- c. Convection
- d. Through the air that occupied the pan

What type of front does the model below represent?



- a. Cold front
- b. Stationary front
- c. Warm front
- d. Occluded front

Which of the following statements best describes the energy transfer in the photo below?



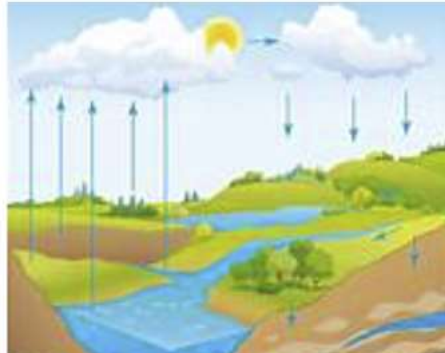
- a. Water changes from a liquid to a solid, and thermal energy is released
- b. Water changes from a liquid to a solid, and thermal energy is absorbed
- c. Water changes from a solid to a liquid, and thermal energy is absorbed
- d. Water changes from a solid to a liquid, and thermal energy is released

The next figure shows water that has been left in a pot on a hot stove. Which statement best describes what is taking place in the images?



- a. Vaporization that occurs on the surface of a liquid is called evaporation
- b. Vaporization that occurs on the surface of a liquid is called boiling
- c. Vaporization that occurs within a liquid is called evaporation
- d. Vaporization at the surface does not occur until a liquid is heated to its boiling point

Which of the following represents a process by which water enters the atmosphere?



a. Transpiration

b. Crystallization

c. Condensation

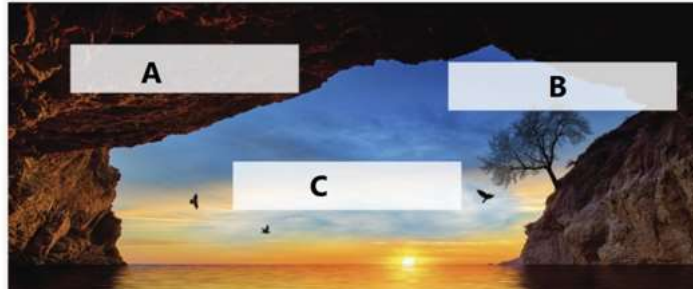
d. Precipitation

Which of the following statements **best** describes the gas particles illustrated in the figure below?



- a. They are moving very slow and far apart
- b. They are stationary and are not able to vibrate
- c. They are very close together and are able to vibrate
- d. They are moving very fast and far apart

Study the next diagram and answer the question: Which of the following letters represents the hydrosphere subsystem of the Earth?



a. A

b. B

c. C

d. D

Why does the temperature of a piece of iron increase more than that of a sample of water with the same mass when the same amount of thermal energy is added?



a. Iron has a higher specific heat

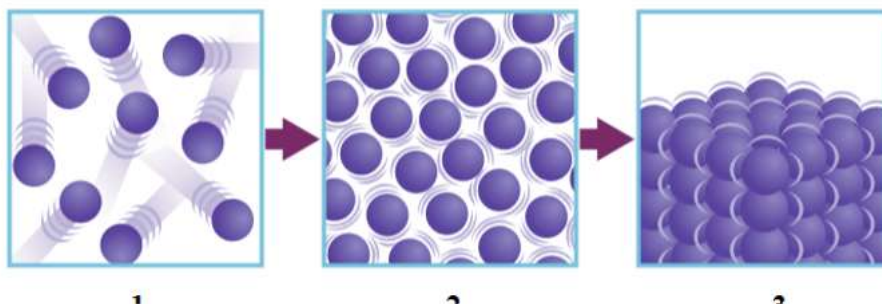
b. Iron has a lower specific heat

c. Iron has a lower freezing point

d. Iron has a lower melting point

Examine the model below. The particles are undergoing a change in energy.

Which statement best describes what is taking place in the images?



a.

The kinetic energy of the particles in image 3 is the greatest of the three images of particles

b.

The particles in image 2 have more kinetic energy than the particles in image 3

c.

Heat has to be applied to the particles in image 1 to move like the particles in image 2

d.

The particles in image 2 have less space between them than the particles in image 1 which means they have more kinetic energy

A large black balloon is taken to a shady area and filled with cool air. The balloon is then taken to a bright, sunny location. After a short time, the balloon begins to expand. What explanation does this investigation verify?

a.

Balloon filled with cool air will rise into the atmosphere

b.

As particles gain energy, the material takes up more space

c.

The air inside the balloon lost energy

d.

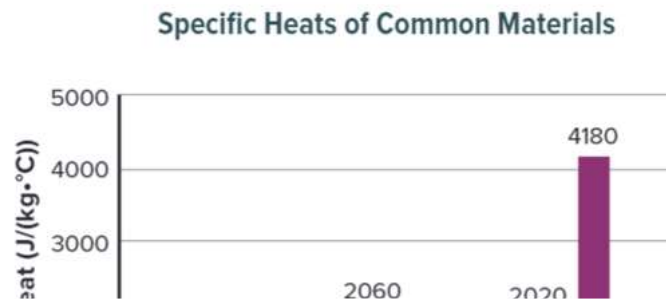
The sunlight caused the air in the balloon to contract

Q.23: .

Mark(s): 5/5

Study the next diagram and answer the question:

According to the materials' specific heat, which of the following statements is correct?



- a. Water is considered the best thermal conductor
- b. Wood is considered the best thermal insulator
- c. Aluminum and copper are capable of conducting heat
- d. Carbon is not capable of conducting heat

Q.24: .

Mark(s): 5/5

Which of the following does not influence a region's climate?

- a. latitude
- b. Average temperature
- c. Large bodies of water
- d. Human population

Which of the following represents the cold wind that blows from east to west and begins as dense air that s

a. The polar easterlies

b. The prevailing westerlies

c. The trade winds

d. The Coriolis effect