

SCIENCE

نماذج اختبارات الأضواء

لشهر نوفمبر

الفصل الدراسي الأول
2
الاعدادي

1- A) Complete the following sentence:

- Convection occurs in and only.

B) First: Give a reason for:

- 1 Changing the color of iron when it is left in humid (moist) air.

.....

- 2 It is preferable to wear dark colored clothes in winter.

.....

Second: What is meant by ...?

- Specific heat of water is equal to 4180 J/kg°C.

.....

2- A) Choose the correct answer:

- Sodium hydroxide is also known as

- a) limewater b) caustic potash c) caustic soda d) table salt

B) What happens when ...?

- 1 Two bodies with the same temperature come into contact.

.....

- 2 Heating a mixture of oil and sodium hydroxide solution with stirring.

.....

3- A) Put (✓) or (X):

- When heating equal masses of water and oil, water heats up faster because its specific heat is higher. ()

B) Compare between:

- 1 Physical and chemical changes (in terms of their definitions).

Physical change	Chemical change

- 2 Heat transfer by conduction and radiation (in terms of the medium).

Conduction	Radiation

1- A) Choose the correct answer:

● The specific heat of a substance depends on its

- a) shape b) type c) mass d) volume

B) First: Classify the following changes into physical or chemical changes:

a- Conversion of milk into yogurt. (.....)

b- Breaking a rock. (.....)

Second: What happens ...?

● When silver chloride precipitate is exposed to sunlight.

.....

2- A) Correct the underlined word:

● Ultraviolet rays are responsible for the feeling of warmth when exposed to sunlight.

(.....)

B) Mention the importance of each of the following:

① Water in the cooling system connected to car engines.

.....

② Thermography.

.....

..

3- A) Write the scientific term:

● It is the state reached by two systems with different temperatures after they come into contact and their temperatures become equal. (.....)

B) Give a reason for:

① It is preferable to use polystyrene panels between hollow bricks when constructing building walls.

.....

.....

② Copper is thermally preferable to aluminum in the manufacture of cooking utensils.

.....

.....

1- A) Put (✓) or (X):

- Boiling water can be considered a chemical change because it produces steam. ()

B) First: Give a reason for ...?

- 1 A protective mask is used when carrying out some chemical reactions.

.....

- 2 Mercury is used in the manufacture of thermometers.

.....

Second: Mention the importance of:

- Hollow clay bricks.

.....

2- A) Write the scientific term:

- The transfer of thermal energy in fluids with the movement of their particles.

(.....)

B) Answer the following questions:

- 1 Mention the factors affecting the change in the temperature of a system.

.....

.....

- 2 Compare between methods of heat transfer "in terms of heat flow direction".

Conduction	Convection	Radiation

3- A) Complete the following sentence:

- A camera can detect the radiation emitted by objects and converts it into colored images.

B) What happens when:

- 1 Silver nitrate solution is added to sodium chloride.

.....

.....

- 2 Fireworks ignition.

.....

.....

1- A) Complete the following sentence:

- When two bodies with different temperatures come into contact, heat flows from the to the body.

B) First: What happens when:

- 1 Heating sugar until it burns.
-

- 2 Snakes have lost their sensory receptors in their heads.
-

Second: Mention the products of the following reaction:

- A chemical reaction occurs when methane gas (CH_4) burns in the presence of oxygen.
-

2- A) Write the scientific term:

- Breaking bonds between atoms of reactants and forming new bonds between product atoms. (.....)

B) Classify the following changes as physical or chemical:

- 1 Limewater turns milky when CO_2 is passed through it. (.....)
- 2 Iodine sublimation. (.....)

3- A) Choose the correct answer:

- The phenomenon of occurs due to difference between the specific heat of land and sea.

- a) tides b) lunar eclipse c) sea breeze d) solar eclipse

B) Give a reason for:

- 1 The presence of cooling systems inside electronic devices made of thermal conductors.
-

- 2 The blue color of a copper sulfate solution disappears when a zinc plate is placed in it.
-

SCIENCE

إجابات نماذج اختبارات الأضواء

لشهر نوفمبر

الفصل الدراسي الأول
2
الإعدادي

1- A) Complete the following sentence:

- Convection occurs in liquids and gases only.

B) First: Give a reason for:

- 1 Changing the color of iron when it is left in humid (moist) air.
 - Due to a chemical reaction between the iron and the oxygen in the humid air, a new substance with different properties is produced.
- 2 It is preferable to wear dark colored clothes in winter.
 - Because they absorb infrared radiation, making us feel warm.

Second: What is meant by ...?

- Specific heat of water is equal to 4180 J/kg°C.
 - The amount of heat required to raise the temperature of 1 kilogram of water by $^{\circ}\text{C} = 4180 \text{ J}$.

2- A) Choose the correct answer:

- Sodium hydroxide is also known as
 - a) limewater b) caustic potash c) caustic soda d) table salt

B) What happens when ...?

- 1 Two bodies with the same temperature come into contact.
 - Thermal energy doesn't flow between them.
- 2 Heating a mixture of oil and sodium hydroxide solution with stirring.
 - A solid substance (soap) forms with different properties as a result of a chemical reaction.

3- A) Put (✓) or (X):

- When heating equal masses of water and oil, water heats up faster because its specific heat is higher. (X)

B) Compare between:

- 1 Physical and chemical changes (in terms of their definitions).

Physical change	Chemical change
A change in state or shape of a substance without changing its chemical composition.	A change that results in new substances with chemical properties different from those of the original substances.

- 2 Heat transfer by conduction and radiation (in terms of the medium).

Conduction	Radiation
It occurs in solids such as metals.	It occurs in vacuums and gases.

1- A) Choose the correct answer:

- The specific heat of a substance depends on its

a) shape b) type c) mass d) volume

B) First: Classify the following changes into physical or chemical changes:

a- Conversion of milk into yogurt.

Chemical change

b- Breaking a rock.

Physical change

Second: What happens ...?

- When silver chloride precipitate is exposed to sunlight.
 - Its color changes from white to violet.

2- A) Correct the underlined word:

- Ultraviolet rays are responsible for the feeling of warmth when exposed to sunlight. (Infrared rays)

B) Mention the importance of each of the following:

- 1 Water in the cooling system connected to car engines.
 - Cooling car engines and protecting them from damage.
- 2 Thermography.
 - It is used for detecting the thermal radiation emitted from objects and convert it into colored images.

3- A) Write the scientific term:

- It is the state reached by two systems with different temperatures after they come into contact and their temperatures become equal. (Thermal equilibrium)

B) Give a reason for:

- 1 It is preferable to use polystyrene panels between hollow bricks when constructing building walls.
 - To avoid rapid changes in temperature inside buildings when temperatures change outside buildings, which reduces the cost of air conditioning inside buildings.
- 2 Copper is thermally preferable to aluminum in the manufacture of cooking utensils.
 - Because copper is a better conductor of heat than aluminum.

1- A) Put (✓) or (X):

- Boiling water can be considered a chemical change because it produces steam. (X)

B) First: Give a reason for ...?

- 1 A protective mask is used when carrying out some chemical reactions.
 - To avoid harmful effects of bright light.
- 2 Mercury is used in the manufacture of thermometers.
 - Because of its low specific heat compared to other liquids, and it is sensitive and responds quickly to temperature changes in thermometers.

Second: Mention the importance of:

- Hollow clay bricks.
 - They are used in the construction of the exterior walls as the thermal conductivity of the air found in the hollow cavities of bricks is low.

2- A) Write the scientific term:

- The transfer of thermal energy in fluids with the movement of their particles. (Thermal convection)

B) Answer the following questions:

- 1 Mention the factors affecting the change in the temperature of a system.
 - 1-The mass of the substance
 - 2-The type of the substance
 - 3-The state of the substance
- 2 Compare between methods of heat transfer "in terms of heat flow direction".

Conduction	Convection	Radiation
Heat transfers from the hot object to the cold object.	Heat transfers upward "from the area of least density in the fluid to the area of the greatest density".	Heat transfers in all directions.

3- A) Complete the following sentence:

- A **thermograph** camera can detect the **infrared** radiation emitted by objects and converts it into colored images.

B) What happens when:

- 1 Silver nitrate solution is added to sodium chloride.
 - A chemical reaction occurs, forming a white precipitate of silver chloride, which is insoluble in water.
- 2 Fireworks ignition.
 - Light and heat are emitted as a result of the chemical reaction.

1- A) Complete the following sentence:

- When two bodies with different temperatures come into contact, heat flows from the **higher temperature** to the **lower temperature** body.

B) First: What happens when:

- 1 Heating sugar until it burns.
 - A black substance with strong odor will produce.
- 2 Snakes have lost their sensory receptors in their heads.
 - They cannot detect infrared radiation emitted by their prey and cannot hunt at night.

Second: Mention the products of the following reaction:

- A chemical reaction occurs when methane gas (CH_4) burns in the presence of oxygen.
 - Carbon dioxide gas and water vapor.

2- A) Write the scientific term:

- Breaking bonds between atoms of reactants and forming new bonds between product atoms. (Chemical reaction)

B) Classify the following changes as physical or chemical:

- 1 Limewater turns milky when CO_2 is passed through it. Chemical change
- 2 Iodine sublimation. Physical change

3- A) Choose the correct answer:

- The phenomenon of occurs due to difference between the specific heat of land and sea.
 - a) tides
 - b) lunar eclipse
 - c) sea breeze
 - d) solar eclipse

B) Give a reason for:

- 1 The presence of cooling systems inside electronic devices made of thermal conductors.
 - To dissipate the heat generated in the internal components, which may lead to poor performance or damage.
- 2 The blue color of a copper sulfate solution disappears when a zinc plate is placed in it.
 - This is due to the occurrence of a chemical reaction, which forms the colorless zinc sulfate solution.

1- A) Put (✓) or (X):

- The specific heat of beach sand is equal to the specific heat of water. (✓)

B) Give a reason for:

- 1 Firefighters wear shiny silver suits.
 - Because they reflect most amount of heat and thermal radiation resulting from fires.
- 2 The cut surface of an apple turns brown when it is exposed to air.
 - Due to a chemical reaction with oxygen in humid (moist) air.
- 3 Cooking pans are made of aluminum.
 - Because aluminum is a thermal conductor.

2- A) Choose the correct answer:

- Heater transfer heat by
 - a) conduction only
 - b) convection only
 - c) convection and conduction
 - d) convection and radiation

B) What indicates that the following reactions have occurred....?

- 1 Orange goes rotten.
 - The change of the color of the orange and the emission of a bad odor.
- 2 Reaction of magnesium with dilute hydrochloric acid.
 - Formation of hydrogen gas bubbles.

3- A) Complete the following sentence:

- Evidence of a chemical reaction includes the emission of **light and heat**, such as what happens when a strip of **magnesium** burns.

(B) Answer the following questions:

- 1 Give an example of a thermal conductor used in electronic devices
 - Silver.
- 2 Compare between thermal conductors and insulators:

Thermal conductors	Thermal insulators
They are good conductors of heat.	They are poor heating conductors.
Examples: Diamond and metals.	Examples: Wood and plastic.

تطبيق



مذكرات جاهزة للطباعة

لتحميل الملفات التعليمية مجاناً للمعلم والطالب

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امسح الكود بموبايلك علشان تقدر تثبت التطبيق

وتقدر ف أي وقت تحمّل ال نفسك فيه ببلاش

هيغنيك عن البحث والجروبات والقنوات الكثيرة

