

District Public School & College Depalpur

Winter Task with: Home assignments, work sheets and activities

(Second semester)

(Academic Session: 2020-21)

From: 24 November, 2020

To : 24 December 2020



Subject: science

Class: 4th

Student's Name: _____

Father's Name: _____

Block Syllabi of 2nd Semester 2020-2021

Class: 4th

SUBJECT : SCIENCE

Unit 6: Matter and Material

(Book and work book)

- Atoms and Molecules. (pg#42,43)
- Mixtures, solutions, and suspension (pg# 45,46) (47 Q.1)

Unit. 7: Heat, light, and Sound

(Book and work book)

- Understanding temperature. Pg #48
- How a thermometer works? Pg 49

Unit 8: Force, Tools, and Machines

(Book and work book)

- Types of forces.(buoyancy, gravity) pg # 56,57,58
- Simple machines (lever) (pg# 60 Q.1) pg# 61,63 (pg #65 Q.1,2,5)

Unit 9: Electricity and Magnetism

(Book and work book)

- Electricity and its uses. Pg # 66,67,68 ,69 (all questions) pg71(Q.3)

Unit 10:The Solar System

(Book and work book)

- Movements of the Earth. (Pg #72)
- The revolving earth pg #72
- The spinning earth pg # 73 and 75 (Q.1)

Date: 26 November, 2020

Day: Thursday

Chapter: 06

Matter and materials

Topic: Atoms and molecules

Book page: 42-43

Objectives: Student will be able to understand atom and molecule

Question.1 Fill in blanks

- ❖ Atom is _____ particle.(tiny)
- ❖ All matter is made up of _____. (atom)
- ❖ A _____ is made up of two or more atoms. (molecule)

Question .2 Choose the correct option

1-Particle is a word used to describe

- (a) Very large things **(b) very small things** (c) medium thing (d) none of these

2-The nucleus contains

- (a) electron (b)proton (c)neutron **(d)b and c**

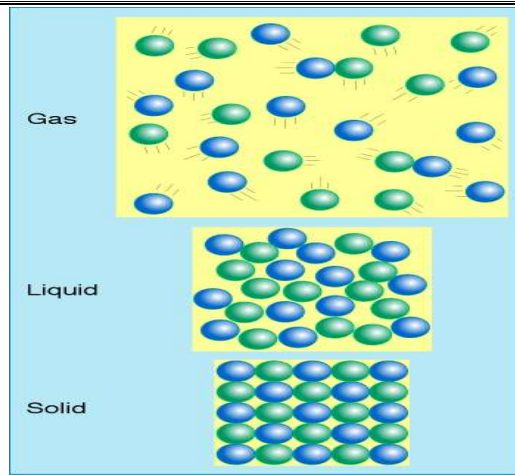
3-In solids particles are arranged

- (a) **tightly** (b)loosely (c)weakly (d)far away from each other

Question no. 3. Draw three diagrams showing how particles are packed within

- 1- a solid 2- a liquid 3- a gas**

Answer:



Answer:

Gas diagram	Liquid diagram	Solid diagram

Question no: 2. what is the difference between an atom and a molecule? Draw diagrams to explain your answer.

Answer:

Atom	Molecule
<p>It is a tiny particle. All matter is made up of atoms.</p> <p>Example: C-atom. H-atom</p>	<p>It is a particle made up of two or more atoms.</p> <p>Example:H₂O molecule</p>

Answer:

Atom	Molecule

Date: 27 November, 2020

Day: Friday

Topic: Mixtures, solution, and suspensions.

Book page:45, 46

Objectives: Student will be able to understand mixture, solution, and suspension

Question no.1: Fill the following blanks with suitable words.

1-A _____ is a combination of two or more materials. (mixture)

2-In mixture each component maintain its _____ properties. (individual)

3-There are _____ types of mixture. (Two)

4-A _____ is a mixture in which solid material dissolves in the liquid.
(Solution)

5- A _____ is a mixture in which the materials separate from each other if they are left to stand. (Suspension)

Question No: 2

Short answers of the following questions.

1- Define mixture. What are the two types of mixture?

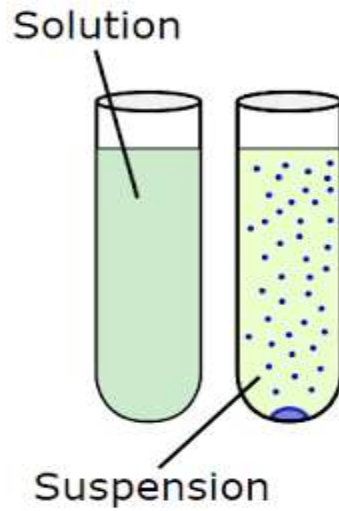
Answer:

Definition: A mixture is a combination of two or more different materials.

There are two types of solution.

- Solution
- Suspension

Answer: _____



2- Define solution. Give two examples of it?

Answer:

Definition: A solution is a mixture in which the solid material dissolves in the liquid. They do not separate from each other if they are left to stand.

Example: 1- Sugar in water.

2- Salt in water.

Answer: _____

3-Define suspension. Give two examples of it?

Answer:

Definition: A suspension is a mixture in which materials separate from each other if they are left to stand.

Example: 1-Soil in water.

2- Sand in water.

Answer: _____

Activity:

Sir Jhon Dalton



Although a school teacher, a meteorologist and an expert on color blindness, Jhon Dalton is best known for his pioneering theory of atomism. He also develops methods to calculate atomic weights and structures and formulated the law of partial pressures.

Question: What are the findings of Sir Jhon Dalton?

Answer: _____

Assessment

Question no.1: Fill the following blanks with suitable words.

- 1-A _____ is a combination of two or more materials.
- 2-In mixture each component maintain its _____ properties.
- 3-There are _____ types of mixture.
- 4-A _____ is a mixture in which solid material dissolves in the liquid.
- 5- A _____ is a mixture in which the materials separate from each other if they are left to stand.

Question No 2:- Define suspension. Give two examples of it?

Answer: _____

Question No. 3:- What is the difference between an atom and a molecule? Draw diagrams to explain your answer.

Answer:

Atom	Molecule

Question No 4:- Draw three diagrams showing how particles are packed within

1- a solid 2- a liquid 3- a gas

Answer:

Solid diagram	Liquid diagram	Gas diagram

Date: 30 November, 2020

Day: Monday

Unit: 7. Heat, Light, and Sound.

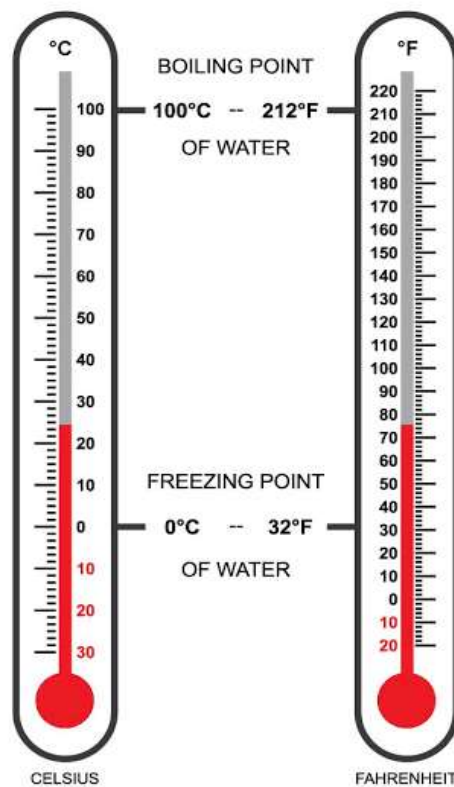
Topic: Understanding temperature

Book page:48

Objectives: Student will be able to understanding temperature.

➤ Fill the gaps with suitable results.

- Heat is measured by _____ . (temperature)
- There are _____ main scales for measuring temperature.(two)
- Celsius degrees are _____ larger than Fahrenheit degrees.(larger)
- Temperature really measures how much _____ an object has. (heat energy)



Question No: 1. Write down the boiling point and freezing point of water in Celsius and Fahrenheit Scale?

Answer: On the Celsius scale, water freezes at 0° and boils at 100°. On the Fahrenheit scale, water freezes at 32° and boils at 212°.

Answer: _____

Question No: 2. Write the use of Kelvin scale?

Answer: A third scale used for measuring temperature is Kelvin scale. The Kelvin scale is used to measure extremely cold and extremely hot temperatures.

Answer: _____

Question No: 3. Name three scales used for measuring temperature?

Answer: The three main scales are:

- Celsius
- Fahrenheit
- Kelvin

Answer: _____

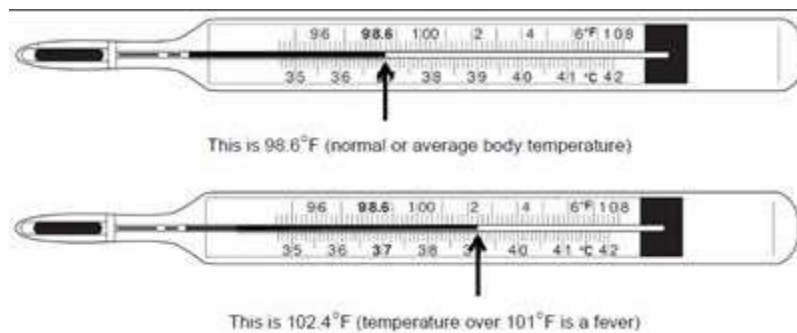
Objectives: Student will be able to understand how thermometer works?

➤ Choose right option as your answer.

- Thermometer is used to measure _____.
(a) heat (b) light (c) temperature (d) none of these
- The glass of thermometer is filled with _____.
(a) gas (b) solid (c) liquid (d) all of these
- When the liquid is _____, its molecules stay close together.
(a) hot (b) cold (c) normal (d) all of these
- The hotter the temperature, the _____ the liquid travels up.
(a) higher (b) lower (c) slower (d) none

Question: How does a thermometer work? Draw a diagram to explain your answer.

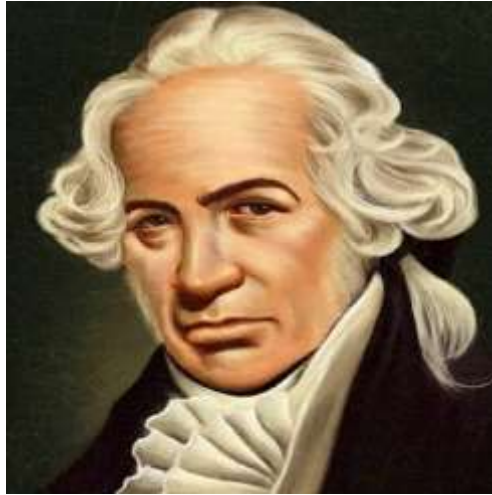
Answer: As the temperature of a thermometer increases, the molecules of the liquid begins to spread out and take more space. This causes the liquid to move up the thermometer to find more room. The hotter the temperature, the higher the liquid travels up the tube.



Answer: _____

Activity:

Daniel Gabriel Fahrenheit



Daniel Gabriel Fahrenheit was born on May 24, 1686 in Danzig, Poland. He is best known for inventing the alcohol thermometer (1709) and mercury thermometer (1714). The Fahrenheit scale is named after this Polish-born scientist, who lived about 300 years ago. He died on September 16, 1736 in Netherland.

Question: Write down the workings of Daniel Fahrenheit?

Answer: _____

Assessment

➤ Choose right option as your answer.

- Thermometer is used to measure _____.
(a) heat (b) light (c) temperature (d) none of these
- The glass of thermometer is filled with _____.
(a) gas (b) solid (c) liquid (d) all of these
- When the liquid is _____, its molecules stay close together.
(a) hot (b) cold (c) normal (d) all of these
- The hotter the temperature, the _____ the liquid travels up.
(a) higher (b) lower (c) slower (d) none

Question: How does a thermometer work? Draw a diagram to explain your answer.

Answer: _____

Date: 3 December, 2020

Day: Wednesday

Unit: 8. Force, Tools, and Machines.

Topic: Types of forces (Buoyancy)

Book page: 56, 57

Objectives: Student will be able to understand type of forces how they work?

- **Fill in the blanks with suitable words.**

- Buoyancy is a force that works in _____. (water)
- It is an _____ pressure. (upward)
- It is because of _____ things float on water. (buoyancy)
- Whether or not something floats depends on how much it _____. (weight)

Question No: 1. Explain with the help of a diagram how a boat floats on water. What is the force that makes this possible?

Answer: Boats are able to float because of the force of buoyancy.



Answer: _____

_____.

Question No: 2. Why do some objects float?

Answer: Objects float because of buoyancy. Buoyancy is a force that works in water. It is an upward pressure.

Answer: _____

_____.

Question No: 3. Why do some things sink?

Answer: Some things sink because their weight is more than the total weight of the water they move in.

Answer: _____

_____.

Date: 4 December, 2020

Day: Thursday

Topic: Types of Forces (Gravity)

Book page.57,58.

Objectives: Student will be able to understand gravity as a type of force.

➤ Choose the best option as your answer.

- _____ has the most powerful force of gravity.
(a)the Sun (b)the Earth (c)the Moon (d)the solar system
- _____ is a force that keeps us on earth.
(a)buoyancy (b)gravity (c)friction (d)all of these
- It is a force that makes sure that what goes up must come _____.
(a)up (b)down (c)left (d)right
- All objects fall to the Earth with same _____.
(a)weight (b)mass (c)speed (d)none

Question No 1:- What is gravity? What effect does it have on objects?

Answer: Gravity is a force that keeps us on Earth. It is the force that makes sure that what goes up must come down.

Answer:

Date: 5 December, 2020

Day: Friday

Topic: Simple Machines (Lever, Wedge, Screw)

Book page: 61

Objectives: Student will be able to understand lever, wedge and screw as types of simple machines.

➤ **Fill in the blanks with suitable words.**

- A lever is used to _____ the objects with little efforts. (lift)
- The arm of the lever is attached to a _____. (fulcrum)
- _____, _____ and _____ are examples of lever.(wheelbarrow, see-saw, tweezers)
- A _____ is two inclined planes joined together. (wedge)
- A _____ is a wedge that cuts wood. (chisel)
- _____ is an inclined plane wrapped around a cylinder. (screw)
- A _____ is used to _____ the objects in place. (screw, hold)
- The _____ surface of wedge is used to split apart or cut things.(pointed edge)

Activity:

Isaac Newton



Sir Isaac Newton was an English mathematician, physicist, astronomer, and author. He has still been greatly recognized as one of the most influential scientist of all time and as a key figure in the scientific revolution. His workings include Newton's law of motion and Newton's universal Gravitational law.

Question: Write a short note on Isaac Newton's working?

Answer: _____

Date: 6 December, 2020

Day: Saturday

Assessment

➤ **Fill in the blanks with suitable words.**

- A lever is used to _____ the objects with little efforts.
- The arm of the lever is attached to a _____.
- _____, _____ and _____ are examples of lever.
- A _____ is two inclined planes joined together.
- A _____ is a wedge that cuts wood.
- _____ is an inclined plane wrapped around a cylinder.
- A _____ is used to _____ the objects in place.
- The _____ surface of wedge is used to split apart or cut things.

Question No: 1. Why do some objects float?

Answer: _____

_____.

Question No: 2. What is gravity? What effect does it have on objects?

Answer: _____

_____.

Date: 8 December, 2020

Day: Monday

Unit 9: Electricity and magnetism.

Topic: What is electricity?

Objectives: Student will be able to understand about what is the electricity?

➤ **Choose the correct answer.**

- When does an electric current occur?
 - (a) When electrons move between molecules in the same direction.
 - (b) When electrons move between atoms in the same direction**
 - (c) When electrons move between molecules in the different direction.
 - (d) When electrons move between atoms in the different direction.
- Current travels along
 - (a) Strings (b) ropes **(c) wires** (d) poles
- Which of the following does not use electricity?
 - (a) car **(b)candle** (c)toaster (d)television
- Static electricity is produced when two objects rubbed together and electrons jump from one object to other due to
 - (a) current (b)resistance **(c)friction** (d)gravity

Question No: 1: What is current electricity and how it is produced?

Answer: When billion of electrons leave their own atom and start jumping from one atom to another, all in same direction, electricity is produced called current electricity.

Answer: _____

Question No 2:- What is static electricity and how is it produced?

Answer: Static electricity is caused by friction when two objects are rubbed together.

Answer: _____
_____.

Date: 9 December, 2020

Day: Tuesday

Topic: Electricity and its uses.

Book page: 66 and 67

Objectives: Student will be able to understand about electricity and its uses.

➤ **Fill in the blanks with suitable words.**

- Electricity is a type of _____. (energy)
- _____ are inside atoms. (electrons)
- The electricity produced by rubbing objects is called _____ electricity. (static)
- The Flowing electricity is known as _____ electricity. (current)
- Today, even some _____ are powered by electricity. (cars)

Question :- Write the name of five places where electricity is used?

Answer: It is used everywhere as:

- In homes
- In schools
- In offices
- In factories
- In shopping malls etc.

Assessment

➤ Choose the correct answer.

- When does an electric current occur?
(a) When electrons move between molecules in the same direction.
(b) When electrons move between atoms in the same direction
(c) When electrons move between molecules in the different direction.
(d) When electrons move between atoms in the different direction.
- Current travels along
(a) strings (b)ropes (c)wires (d)poles
- Which of the following does not use electricity?
(a) car (b)candle (c)toaster (d)television
- Static electricity is produced when two objects rubbed together and electrons jump from one object to other due to
(a) current (b)resistance (c)friction (d)gravity

Question No: 1: What is current electricity and how it is produced?

Answer: _____

_____.

Question No 2:- What is static electricity and how is it produced?

Answer: _____

_____.

Unit 10: The solar system

Book page: 72

Topic: Movements of the Earth

Objectives: Student will be able to understand about the solar system.

➤ Fill in the blanks with suitable words.

- The earth is not quiet _____ circle. (solid)
- Earth is _____ at the poles. (two)
- The Earth is constantly _____ around the Sun.(spinning)
- Earth takes _____ to orbit around the Sun.(365 days)
- There are _____ poles of the Earth. (two)
- The Earth is constantly _____ on its axis.(orbit)
- 365 days= _____ year. (1)

➤ Choose the correct option.

- Days and nights are formed by
 - (a) By spinning Earth
 - (b) By revolving Earth
 - (c) By tilting Earth
 - (d) None.
- Years aye formed by
 - (a) By rotation of Earth
 - (b) By revolution of Earth
 - (c) Both a and b
 - (d) None.
- One year is exactly equals to
 - (a) 365 days, 48 minutes, and 36 seconds.
 - (b) 365 days, 36 minutes, and 46 seconds.
 - (c) 365 days, 48 minutes, and 46 seconds.
 - (d) 365 days, 48 minutes, and 60 seconds.

Date: 13 December, 2020

Day: Saturday

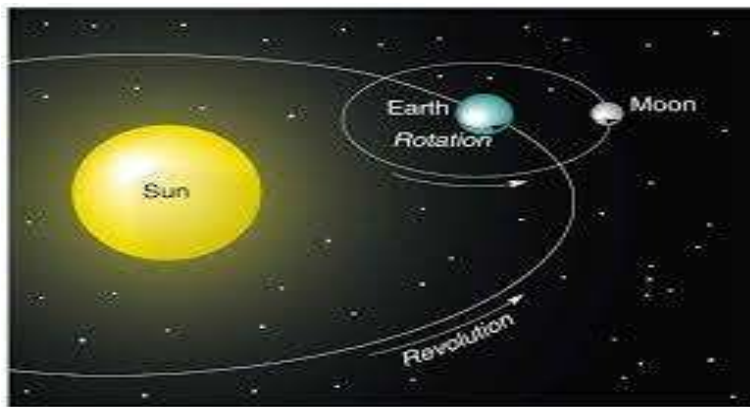
Topic: The revolving Earth.

Book page: 72

Objectives: Student will be able to understand about the revolving Earth.

Question No 1:- what do you know about the Earth revolution?

Answer: The Earth is constantly revolving around the Sun. So, it takes about 365 days, 48 minutes, and 46 seconds to orbit the Sun. That is how an year is formed.



Answer: _____

_____.

Date: 15 December, 2020

Day: Monday

Topic: The spinning Earth.

Book page: 73

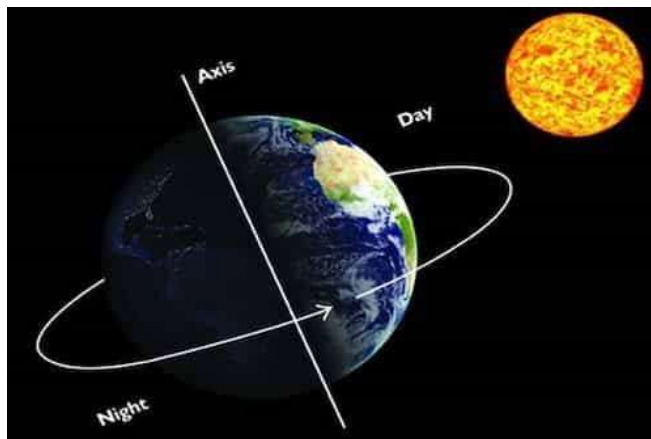
Objectives: Student will be able to understand about the revolving Earth.

Question No 1:- What do you know about the spinning of Earth?

Answer: The Earth is constantly spinning on its axis.

The axis is an imaginary line passing through the North and the South Poles.

This spinning movement gives us day and night.



Answer: _____

_____.

Question No 2:-What is the axis of Earth?

Answer: The axis is an imaginary line passing through the North and South Poles of the Earth.

Answer: _____

_____.

Date: 16 December, 2020

Day: Tuesday

Assessment

Question No 1:- what do you know about the Earth revolution?

Answer: _____

_____.

Question No 2:- What do you know about the spinning of Earth?

Answer: _____

_____.