

DREAMLAND SCHOOL

HOME ASSIGNMENT – 2020-2021

CLASS –VIII SUBJECT – ENGLISH LANGUAGE

CHAPTER – 1 _NOUNS

A NOUN is a word that names a person, a place, a thing, an idea or an activity.

There are FIVE kinds of NOUNS.

- 1. A COMMON NOUN** – a general name e.g.dress, park, roof, pigeons and boys .
- 2. A PROPER NOUN** - a special name e.g.John, Mt. Everest, Saturn and Buddha .
- 3. A COLLECTIVE NOUN** – a group taken as a whole e.g. shoal, crowd, herd and bouquet.
- 4. AN ABSTRACT NOUN** –a feeling, a state of mind or a quality e.g. anger,childhood and poverty.
- 5. A MATERIAL NOUN**-the matter or substance of which a thing is made e.g.paper, gold and silk.

EXERCISE 1. Pick out the NOUNS in the following sentences and identify their kinds.

- 1.Water is necessary for life.
2. The minister addressed a large crowd.
3. Always speak the truth.
4. The Ramayana is the holy book of the Hindus.
5. Bravery and patience are the virtues of our soldiers.
- 6.Iron is more useful than gold .

EXERCISE 2. Complete the following sentences using the appropriate collective nouns .

1. The _____ of the flight was very smartly dressed.
2. The band sang their favourite songs following the earnest request from their _____.
3. Students were asked to study the position of stars carefully and draw their favourite _____ as homework .
4. My father gifted me a _____ of black pearls from Polynesia.
5. Our extended _____ is due to meet at the wedding of my cousin.

EXERCISE 3. Fill in the blanks with appropriate abstract nouns.

- 1._____ is the best medicine.
- 2.Their _____ is admired by all.
3. What is the _____ of this well ?
4. He has received many awards for his _____.
5. Solomon was known for his _____.
6. It is my _____ to sacrifice my life for my motherland.
- 7._____ is the best period of life.
- 8.The _____ of this box is 20 kg.

DREAMLAND SCHOOL

HOME ASSIGNMENT – 2020-2021

CLASS –VIII SUBJECT – ENGLISH LANGUAGE

CHAPTER – 2 PRONOUNS

A PRONOUN is a substitute for noun to avoid repetition.

There are NINE kinds of PRONOUNS.

1. PERSONAL PRONOUNS – stands for a person or thing e.g. I, you, he, it and they.

2. INTERROGATIVE PRONOUNS – used to ask a question e.g. who, what, which and whose .

3. DEMONSTRATIVE PRONOUNS -used to point out object or objects e.g. this,these, that and those.

4. POSSESSIVE PRONOUNS – shows possession e.g.mine, hers, ours and his.

5. INDEFINITE PRONOUNS – refers to persons or things in a general way e.g.some, few, all,none, everybody and others.

6. REFLEXIVE PRONOUNS –the action of the subject reflects on the subject itself e.g.myself, yourself, herself and ourselves .

7. EMPHATIC PRONOUNS –used to convey emphasis e.g. myself, herseif, himself and themselves. (**A REFLEXIVE PRONOUN answers the question :WHOM? AN EMPHASISING PRONOUN lays emphasis.**)

8. DISTRIBUTIVE PRONOUNS –shows that persons or things are taken one at a time or in separate groups e.g. each, either and neither .

9. RELATIVE PRONOUNS –join two sentences and refer back to nouns going before them e.g.who, whose, whom, that and which.

EXERCISE -1. DO as directed .

1. I gave her a pen _____ thanked me. (Use Personal Pronoun)

2. _____ do you hate ? (Use Interrogative Pronoun)

3. _____ is the table I purchased last year . (Use Demonstrative Pronoun)

4. _____ of them came to see me . (Use Distributive Pronoun)

5. _____ should keep one's promises . (Use Indefinite Pronoun)

EXERCISE -2. Join the following pairs of sentences using Relative Pronouns.

1. This is the man . His arm was blown off in the war.

2. He was a leader. All people respected him.

3. Here are the comics. I bought them for you .

4. The child is called an orphan. His parents are dead.

5. She has lost the watch. It was presented to her.

6. She gave the answer. The answer is not right.

HOME ASSIGNMENTS
CLASS 8-MATHEMATICS

CHAPTER-1 (RATIONAL NUMBERS)

Any number that can be expressed in the form of $\frac{p}{q}$, where p and q are integers and $q \neq 0$ is called a rational number.

- Commutative Property : $\frac{p}{q} + \frac{r}{s} = \frac{r}{s} + \frac{p}{q}$ & $\frac{p}{q} \times \frac{r}{s} = \frac{r}{s} \times \frac{p}{q}$ BUT $\frac{p}{q} - \frac{r}{s} \neq \frac{r}{s} - \frac{p}{q}$ & $\frac{p}{q} \div \frac{r}{s} \neq \frac{r}{s} \div \frac{p}{q}$ [when $q, s \neq 0$]
- Associative Property : $\frac{p}{q} + (\frac{r}{s} + \frac{t}{u}) = (\frac{p}{q} + \frac{r}{s}) + \frac{t}{u}$ & $\frac{p}{q} \times (\frac{r}{s} \times \frac{t}{u}) = (\frac{p}{q} \times \frac{r}{s}) \times \frac{t}{u}$
BUT $\frac{p}{q} - (\frac{r}{s} - \frac{t}{u}) \neq (\frac{p}{q} - \frac{r}{s}) - \frac{t}{u}$ & $\frac{p}{q} \div (\frac{r}{s} \div \frac{t}{u}) \neq (\frac{p}{q} \div \frac{r}{s}) \div \frac{t}{u}$ [when $q, s, u \neq 0$]
- Distributive Property of Multiplication over Addition : $\frac{p}{q} \times (\frac{r}{s} + \frac{t}{u}) = (\frac{p}{q} \times \frac{r}{s}) + (\frac{p}{q} \times \frac{t}{u})$ [when $q, s, u \neq 0$]
- Distributive Property of Multiplication over Subtraction : $\frac{p}{q} \times (\frac{r}{s} - \frac{t}{u}) = (\frac{p}{q} \times \frac{r}{s}) - (\frac{p}{q} \times \frac{t}{u})$ [when $q, s, u \neq 0$]

Thus, we conclude that Commutative & Associative Properties are applicable for Addition & Multiplication, AND not for Subtraction & Division of rational numbers.

- Additive Inverse of $\frac{p}{q}$ is $-\frac{p}{q}$ & $-\frac{p}{q}$ is $\frac{p}{q}$ [sum of a rational number and its additive inverse is always '0']
- Multiplicative Inverse of $\frac{p}{q}$ is $\frac{q}{p}$ & $\frac{q}{p}$ is $\frac{p}{q}$ [product of a rational number and its multiplicative inverse is always '1']

SOLVE YOURSELVES

- ❖ **EX. 1.1 → 8)** If $a = \frac{-11}{27}$; $b = \frac{4}{9}$ and $c = \frac{-5}{18}$, then verify that $a + (b + c) = (a + b) + c$.
- ❖ **EX. 1.2 → 7)** If $x = \frac{4}{9}$; $y = \frac{-7}{12}$ and $z = \frac{-2}{3}$, then verify that $x - (y - z) \neq (x - y) - z$.
- ❖ **EX. 1.3 → 6)** If $p = \frac{-8}{27}$; $q = \frac{3}{4}$ and $r = \frac{-12}{15}$, then verify that $p \times (q \times r) = (p \times q) \times r$ AND $p \times (q - r) = p \times q - p \times r$
 - 8) Is $\frac{4}{5}$ the multiplicative inverse of $-1\frac{1}{4}$? Why or why not?
 - 9) Using distributivity, find the value of $\{\frac{7}{5} \times (\frac{-3}{12})\} + \{\frac{7}{5} \times \frac{5}{12}\}$ AND $\{\frac{9}{16} \times \frac{4}{12}\} + \{\frac{9}{16} \times (\frac{-3}{9})\}$
- ❖ **EX. 1.4 → 7)** Divide the sum of $\frac{8}{3}$ and $\frac{4}{7}$ by the product of $\frac{-3}{7}$ and $\frac{14}{9}$.
 - 8) If $p = \frac{-3}{2}$; $q = \frac{4}{5}$ and $r = \frac{-7}{12}$, then verify that $p \div (q \div r) \neq (p \div q) \div r$.
- ❖ **EX. 1.5 → 4)** Find six rational numbers between $\frac{-1}{2}$ and $\frac{5}{4}$.
- ❖ **EX. 1.6 → 5)** In an examination, 400 students appeared. If $\frac{2}{3}$ of the boys and all 130 girls passed in examination, then find how many boys failed in examination?
 - 8) Perimeter of a rectangle is $15\frac{3}{7}$ m. If the length is $4\frac{2}{7}$ m, find its breadth.
 - 16) A man donated $\frac{1}{10}$ of his money to a school, $\frac{1}{6}$ th of the remaining to a church and the remaining money he distributed equally among his three children. If each child gets Rs. 50,000, how much money did the man originally have?
 - 17) If $\frac{1}{4}$ of a number is added to $\frac{1}{3}$ of that number, the result is 15 greater than half of that number. Find that number.
- ❖ **HOTS → 2)** Rahul can do $\frac{2}{7}$ of a certain work in 6 days while Suresh can do $\frac{3}{5}$ of the same work in 9 days. They started work together, but after 7 days Rahul left the work. Find in how many days Suresh can complete the remaining work?

HOME ASSIGNMENTS
CLASS 8-MATHEMATICS

CHAPTER-2 (EXPONENTS AND POWERS)

LAWNS OF EXPONENTS : i) $a^{-m} = 1 / a^m$

ii) $a^0 = 1$

iii) $(a^m)^n = a^{mn}$

iv) $a^m \times a^n = a^{m+n}$

v) $a^m / a^n = a^{m-n}$

vi) $(ab)^m = a^m \times b^m$

vii) $(a/b)^m = a^m / b^m$

viii) $a^{-m} / b^{-m} = (a/b)^{-m} = 1 / (a/b)^m = (b/a)^m = b^m / a^m$

EXAMPLES

Simplify and write in the exponential form :

$$2^3 + 3^2 + (-11)^2 + 2^{-5} \div 2^{-8} - (-2/5)^0$$

$$= 8 \times 9 + 11^2 + 2^{-5-(-8)} - 1$$

$$= 72 + 121 + 2^3 - 1$$

$$= 72 + 121 + 8 - 1$$

$$= 200$$

$$= 2 \times 2 \times 2 \times 5 \times 5$$

$$= 2^3 \times 5^2 \text{ (Ans.)}$$

Converting from usual form to standard form :

$$0.000000564$$

$$= \frac{564}{1,00,00,00,000}$$

$$= \frac{5.64 \times 100}{10^9}$$

$$= 5.64 \times 10^7 \text{ (Ans.)}$$

Find the value of 'n' in given sum :

$$2^{11} \div 2^5 = 2^{-3} \times 2^{2n-1}$$

$$\Rightarrow 2^{11-5} = 2^{-3+2n-1}$$

$$\Rightarrow 2^6 = 2^{2n-4}$$

$$\Rightarrow 6 = 2n - 4$$

$$\Rightarrow 6 + 4 = 2n$$

$$\Rightarrow 2n = 10$$

$$\Rightarrow n = 5 \text{ (Ans.)}$$

Converting from standard form to usual form :

$$7.54 \times 10^{-4}$$

$$= \frac{7.54}{10^4}$$

$$= \frac{7.54}{10000}$$

$$= 0.000754 \text{ (Ans.)}$$

SOLVE YOURSELVES

❖ EX. 2.1 → 2) Simplify : $[(2)^{-1} + (4)^{-1} + (3)^{-1}]^{-1}$ AND $[(5)^2 - (\frac{1}{4})^{-2}] \times (\frac{3}{4})^{-2}$

4) Express 125^{-4} as a power with base 5 .

10) By what number should $(\frac{3}{2})^{-3}$ be divided to get $(\frac{2}{3})^2$?

11) Find the value of 'm' for which $9^m \div 3^{-2} = 9^4$.

14) If $5^{2x-1} = \frac{1}{(125)^{x-3}}$, find the value of 'x' .

❖ EX. 2.2 → 1) Express in standard form : 6,02,00,00,00,00,00,00,000 AND 0.00000000837

2) Express in usual form : 1.007×10^{11} AND 7.579×10^{-14}

6) Mass of Mars is 6.42×10^{29} kg and the mass of the Sun is 1.99×10^{30} kg. What is the total mass ?

❖ HOTS → 1) Find the multiplicative inverse of $(5^0 + 3^0)(5^0 - 3^0)$.

2) Evaluate : $(\frac{x^p}{x^q})^{p+q} \times (\frac{x^q}{x^r})^{q+r} \times (\frac{x^r}{x^p})^{r+p}$.

3) Evaluate : $\frac{x^p}{x^{p+q}} + \frac{x^q}{x^{p-q+1}}$.

**DREAMLAND SCHOOL
HOME ASSIGNMENT 2020-21
CLASS-VIII
SUBJECT- HIGHER BENGALI**

Q 1. নিম্নে লিখিত সূত্র অনুসরণ করে প্রবন্ধ রচনা কর :-

বিষয় : পরিবেশ দূষণ ও তার প্রতিকার

সূত্র : ভূমিকা – পরিবেশ কী – পরিবেশ দূষণের কারণ – পরিবেশ দূষণের ফলাফল –
প্রতিকারের উপায় - উপসংহার

Q 2. নিম্নলিখিত বিষয়ে পত্র রচনা কর :-

১) বার্ষিক পরীক্ষার ফলাফলের কথা জানিয়ে দিদিকে পত্র

Q 3. নিম্নলিখিত শব্দগুলি দিয়ে বাক্য রচনা কর :-

১) বিখ্যাত

২) করুণা

৩) কিরণ

৪) শীতল

৫) দিবস

৬) বৈশাখ

৭) নদনদী

৮) উত্তম

৯) হারিণ

১০) নিত্য

DREAMLAND SCHOOL

Home Assignment 2020-21

Class-VIII

Subject- Higher Hindi

QUESTION: 1- निम्नलिखित विषय पर दिए गए बिंदुओं के आधार पर निबंध लिखिए-

परहित सरसि धर्म नहीं भाई - परोपकार का अर्थ, प्रकृति द्वारा दिया गया परोपकार का सन्देश, मानव जीवन की सार्थकता का आधार, भारतीय संस्कृति और परोपकार, उपसंहार

QUESTION: 2- निम्नलिखित विषय पर पत्र लिखिए-

आप अपने गाव में छुट्टियाँ बिताने के बात निर्धारित समय पर अपने विद्यालय में नहीं पहुच सके हैं। विद्यालय के प्रधानाचार्य को कारण बताते हुए, छुट्टी के लिए प्रार्थना पत्र लिखिए-

QUESTION 3- निम्नलिखित मुहावरों से वाक्य बनाइये-

- i. रंग में भंग पड़ना (खुशी में बाधा पड़ना)
- ii. धूल में मिलाना (नष्ट कर देना)
- iii. दातो तले ऊँगली दबाना (चकित होना)
- iv. अक्ल का दुश्मन (मुर्ख)
- v. सिर नीचा होना (शर्म से झुकना)
- vi. शेर के दांत गिनना (दुस्साहस करना)
- vii. हंसो के बिच कौवा (शोभा न देना)
- viii. बहती गंगा में हाथ धोना (मौके का लाभ उठाना)
- ix. मक्खियाँ मरना (बेकार बैठे रहना)
- x. पाँचो अंगूलियाँ धी में होना (अत्यंत लाभ होना)

DREAMLAND SCHOOL
HALF YEARLY PROJECT 2020-21
HOME ASSIGNMENT
CLASS 8 HISTORY

RED HOUSE and **BLUE HOUSE** students choose any one topic from below given project topics .

Each Sub topic notes not to be written more than 2 pages.

1.The Renaissance Period :- Renaissance means ‘rebirth’ in French. It was a movement that started in Italy in the 14 th Century which saw a renewed interest in the studies of the Greece and Roman civilisations. The main features of Renaissance was Rationalism, Spirit of Enquiry and Humanism. This period saw a dramatic change in the fields of science, art , language and literature, explorations which transformed the history of Europe.

[Index, Preface, Acknowledgement ,Topic :- The Renaissance Period , Introduction, Subtopic Note (i) Developments in Art, Sculpture and Architecture (ii)Literature and invention of Printing Press (iii) Science and Technology (iv) The explorers and major explorations , Conclusion, Bibliography.

2.Industrial Revolution and Imperialism :- The Renaissance, The Reformation and the voyages of discovery brought about the modern age of Europe . A greater demand for goods gave birth to the factory system and goods began to be produced by machines. The Industrial Revolution began in England due to the availability of sufficient natural resources ,profit driven merchants, plenty of cheap labour and a government which supported industrialisation, helped England to industrialise. Industrialisation later spread to the entire world.

Imperialisation is a policy of establishment of control over other countries by either conquering them with military force or either controlling the politics or the economy of the that country.

[Index, Preface, Acknowledgment , Topic : Industrial Revolution and Imperialism, Introduction, Subtopic (i) Industrial Revolution(Note on Introduction, Machines that were invented during this period, Good Impact of this revolution and Bad Impact of this Revolution) (ii) Imperialism (Note on Introduction, Impact of imperialism on European colony countries] Conclusion, Bibliography.

3.American and French Revolution :- The 18 th century saw a tumultuous change in America and Europe. Apart from rapid changes in the field of technology, art and society, there were two great political revolutions, which had effect not only in America and Europe but the history of the world. The American Revolution (1775-1783) and the French Revolution(1789-1795) led to immense changes in the social structure, politics and economy .

[Index, Preface, Acknowledgement , Topic :- The Age of Revolutions . Introduction, Subtopic Note (i) American Revolution {Note – Economic exploitation , political system in colonies, events leading to the revolt (Special mention of Boston Tea Party and Stamp Act) Importance of the American revolution } (ii) French Revolution{ Note on – Social causes, Political causes, Economic Cause, Course of Revolution, Importance } Conclusion, Bibliography]

GREEN HOUSE and **YELLOW HOUSE** students choose any one topic from the below given project topics

Subtopic notes not to be written in more than 2 pages

1. Rise of Independent States :- The decline of the Mughal empire in the 18th century led to a political chaos . A number of important and powerful nobles broke away from the Mughal Empire and formed their own autonomous or independent states. In some cases these autonomous states remained nominally under Mughal suzerainty but practically established completed autonomous administration within the states. This period saw the rise of Sikhs and the Marathas and several provinces such as Bengal, Awadh, Hyderabad, Carnatic and Mysore asserted their independence.

[Index, Preface, Acknowledgement , Topic :- Rise of Independent States , Introduction, Subtopic (i) Maratha confederacy, (Note on – Balaji Vishwanath, BajiRao – I , Balaji Baji Rao) (ii) Bengal(Note on – Murshid Ouli Khan, Alivardi Khan, Siraj –ud-Daulah) (iii)Mysore (note on – Hyder Ali , Tipu Sultan) , Conclusion , Bibliography.

2. The Conquest of Bengal :- The province of Bengal included present day areas of Bengal, Bihar and Odisha . It was a very fertile and wealthy province with a flourishing trade . Traders from countries such as Britain , France and Holland completed with each other to gain trading rights in the province. Also the administration of Bengal was full on corrupt nobles and officials which made the province a victim of the growing ambitions of the East India Company .

[Index, Preface, Acknowledgement, Topic :- The Conquest of Bengal , Introduction (You can mention the relation of nawab and the East India Company and the Issue of ‘Farmans’ and ‘dastaks’) Subtopics(i0 Battle of Plassey (1757) (note on – Causes of battle , Course of the Battle and its result , Aftermath of the battle of Buxar(iii) Dual Government , its Consequences and the end of Dual Government , Conclusion, Bibliography.

3.The Central Government :- India is a union of states with a federal structure. The government operates at two distinct levels- The Central Government at the Centre and the State Government at the level of the States and Union Territories. At both these levels , the government operates according to the Constitution of India . The government operates through three well defined organs – the Legislature, the Executive and the Judiciary . The Legislative makes laws for the country , the executive implements the laws and the judiciary interprets the laws and punishes the guilty.

[Index, Preface, Acknowledgement ,Topic :- The Central Government – The legislature, Introduction Subtopic (i) Note on Lok Sabha its term and Qualification of the members of the Lok Sabha (ii) Note on Rajya Sabha , its term and Qualification of its members (iii) Note on Speaker and his/her duties (iv) Powers and Functions of the Legislature , Conclusion, Bibliography.

Dreamland school (2020-2021)

Geography

Class-VIII

Home assignment

Chapter-1

Q1 Draw the following conventional symbols

- 1) church
- 2) metalled road
- 3) Bridge
- 4) Settlement

Q2 Answer the following questions

- 1) What does topographical maps show?
- 2) What is a contour line?
- 3) Distinguish between vertical and horizontal equivalent?
- 4) What is a ridge?
- 5) What is a saddle?

Dreamland school (2020-2021)

Geography

Class-VIII

Home assignment

Chapter-2

Q1 Answer the following in short

- 1) Define the term population?
- 2) Define population density?
- 3) Distinguish between immigration and emigration.
- 4) What are the two causes of overpopulation?
- 5) What do the rural and urban population consist of?

Q2 Answer in brief the following

- 1) Write a note on the distribution of population in the world.
- 2) What is the impact of overpopulation?

Dreamland school

Home assignment(2020)

Physics class 8

Chapter 1 (matter)

Q.1. What is matter?

A. Matter is all the living and non living things which can occupy space ,has mass and can be perceived by our sences...

Q.2. What is inter molecular space?

A. The force which is exerted by the molecules on each other due to attraction is known as intermolecular space. This is neither gravitational nor electrostatic force. This is a strong attractive force.

Q.3.What is change of state?

A. The process by which a state can be changed to other state by either absorption of heat or rejection of heat without any change of temperature.

Q.4. What is latent heat?

The quantity of heat which is given to or taken from a substance without any change in temperature during change of state is known as latent heat. This is known as latent heat because this is not manifested by any change in temperature.

Read the following passage and answer the following questions.

Sublimation: sublimation is the process by which a solid when heated ,directly changes into its vapour state without first changing into liquid.

Deposition or solidification: It is a process when a vapour on cooling changes directly into a solid without first changing into liquid.

Sometimes sublimation also takes place without heating . Example naphthalene balls.

Q.1. Name the process- change of the substance directly to vapour state.

Q2. Fill in the blanks: _____ is the process in which a vapour directly changes into solid on cooling.

Q3. Name a substance which without application of heat sublimes.

Q.4. Define sublimation with examples.

Dreamland school

Home assignment (2020)

Physics class 8

Chapter 2 (Physical quantities and measurement).

The relative density of a substance is defined as the ratio of the density of the substance to the density of water. The symbol used for relative density is R.D. Thus, relative density of a substance

R.D = density of the substance / density of water. Relative density of a substance can also be defined as the ratio of the mass of any volume of the substance to the mass of an equal volume of water.

When a body is immersed in a liquid, the following two forces act on it.

1. The weight of the body w acting vertically downwards. This force has a tendency to sink the body.
2. The buoyant force of the liquid F_B acting vertically upwards. The buoyant force is equal to the weight of the liquid displaced by the immersed part of the body. This force has a tendency to move the body up. This is why buoyant force is also called upthrust.

Q1. Define relative density.

Q2. Why relative density has no unit?

A. As it is a ratio of two quantities.

Q3. Fill in the blanks. a. Relative density can also be defined as _____.

b. The weight of the body acts _____.

c. Buoyant force acts _____.

Q4. Why buoyant force is called as upthrust?

The three cases on which floatation of a body differs are

1. Weight of the body is greater than the buoyant force
2. Weight of the body is equal to the buoyant force
3. The weight of the body is less than the buoyant force.

In the first case the body will sink. In the second case the body will float just inside the surface of liquid and in the third case the body will float partially above the surface.

DREAMLAND SCHOOL
CLASS-8
SUB-CHEMISTRY
CHAPTER-2 PHYSICAL AND CHEMICAL CHANGES (EXPLANATION)

Change is an important feature of nature. In every moment there are some changes occurring in our surrounding.

Here are the type of changes mentioned below-

- I. **Slow change and fast change:** The changes that take a longer time to complete is called slow change.
The change which is completed within a short time is called fast change.
- II. **Natural and man-made change:** Some changes which occur naturally is called natural change.
Some changes which is caused by human beings is called man-made change.
- III. **Periodic and non-periodic change:** The change which is repeated in a regular interval of time is called periodic change.
The change which does not occur in a regular interval of time is called non-periodic change.
- IV. **Desirable and undesirable change:** The change which is useful to mankind is called desirable change.
The change which is destructive is called undesirable change
- V. **Reversible and irreversible change:** when the change in a substance can be reversed by changing the condition then it is called reversible change.
- VI. **Physical and chemical change:** The change where the physical composition of a substance will be changed but the chemical composition will be unchanged is called physical change.
The change where the chemical composition of a substance will be changed but the physical composition may or may not be changed is called chemical change.

HOME ASSIGNMENT- CHAPTER-2 (ONE INDEX):

Answer the following questions:

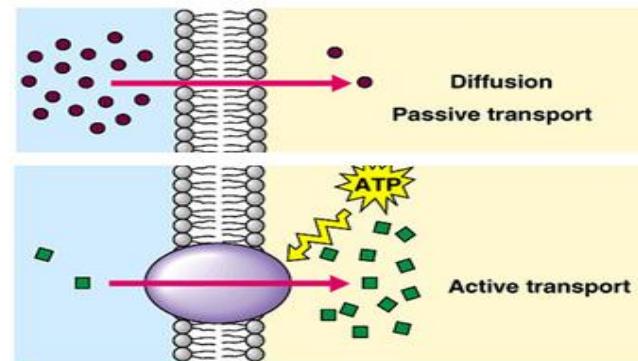
1. Mention which type of change occurs in the following?

i. Raining	v. change of day and night
ii. Earthquake	vi. A young man growing old
iii. Milk turns to curd	vii. Lightning of an electric bulb
iv. Cutting of vegetables	viii. Ripening of raw mango
2. Explain why change of season is periodic change while change of weather is a non-periodic change?
3. Is change of state of matter physical change or chemical change. Explain with reason.

➤ **TRANSPORTATION IN PLANTS** - Transportation is the process of transporting water, minerals and food to all parts of the **plant** body. The main function of xylem is to **transport** water and dissolved minerals from the roots to rest of the **plant** body. While, the phloem transports the food manufactured in the leaves to all parts of the plant.

➤ **MEANS OF TRANSPORT** - There are three means of transport as follows:

- **Diffusion** : It is an important process in the life of a plant. Movement by this process is passive and may be from cell to cell or from one part of the plant to the cell. Diffusion process does not result in the expenditure of energy. The particles move from higher concentration region to lower concentration region. It is a slow process and occurs most likely in liquid and gases.



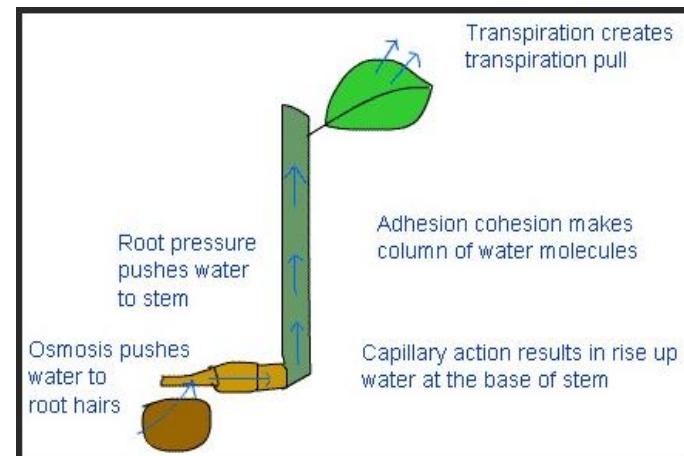
- **Osmosis** : Osmosis is the spontaneous movement of a solvent (water) through a **Cellular Membrane** (semi permeable membrane). This is a special kind of diffusion that moves water molecules from a place of higher concentration to a place of lower concentration to create a stable and equal cellular environment.

- **Active transport** : When the transport of materials are not spontaneous but involves an expenditure of energy, the type of transport is called active transport. This transport generally takes place against the concentration gradient. Active transport always leads to accumulation of molecules are ions towards one side of the membrane. Active transport is carried out by membrane proteins. The protein uses the energy to carry the substance across the membrane.

➤ **ROOT PRESSURE** - **Root pressure** is the transverse osmotic **pressure** within the cells of a **root** system that causes sap to rise through a plant stem to the leaves. **Root pressure** occurs in the xylem of some vascular plants when the soil moisture level is high either at night or when transpiration is low during the day.

➤ **TRANSPERSION** - Transpiration is the process of water movement through a plant and its evaporation from aerial parts, such as leaves, stems and flowers. Water is necessary for plants but only a small amount of water taken up by the roots is used for growth and metabolism. The remaining 97–99.5% is lost by transpiration

➤ **TRANSPERSION PULL** - **Transpiration pull** or the suction force is the force which aids in drawing the water upward from roots to leaves. In leaves, some amount of water is used for photosynthesis and excess water is released into atmosphere through openings called as stomata. This produces a tension or 'pull' on the water in the xylem vessels by the leaves and water molecules are pulled up through the plant.



HOMEWORK QUESTIONS :

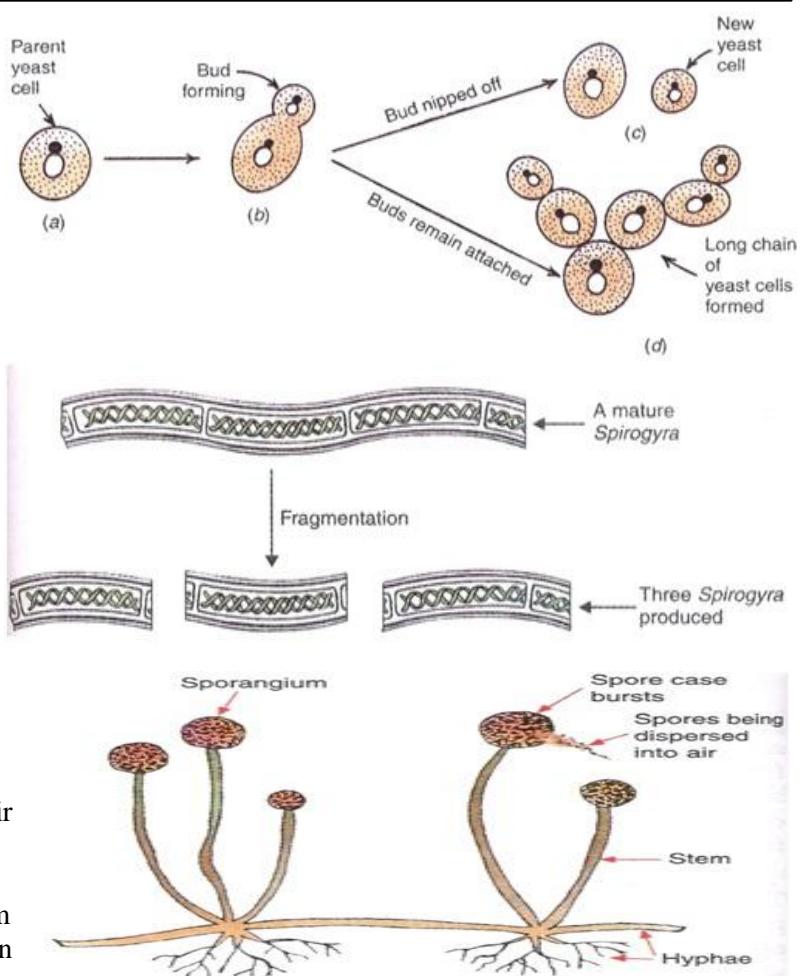
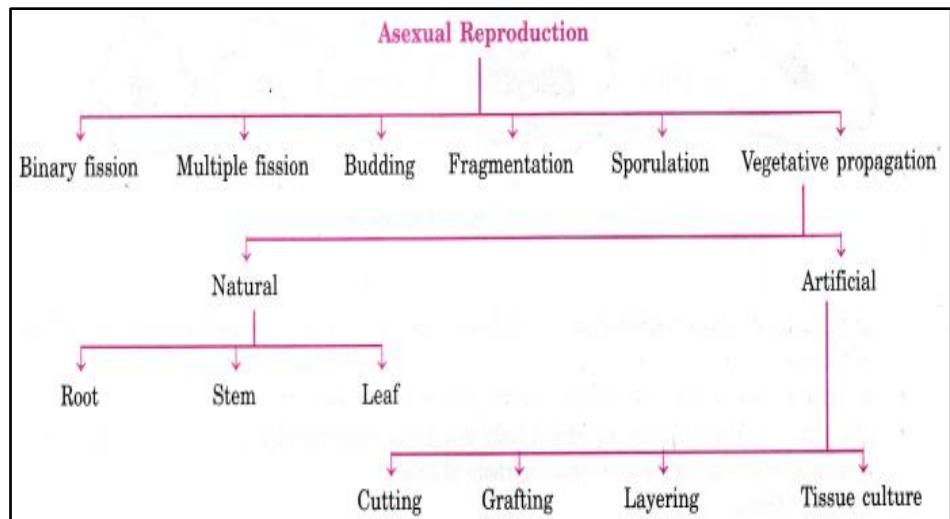
1. Answer the following questions.
 - What are the three means of transport in plants?
 - Write difference between osmosis and diffusion.
 - Write function of the following : a) Xylem b) Phloem
 - Write difference between diffusion and active transport by means of energy requirement.
 - How does the root pressure help in transportation of water in plants?
 - Name the part of the leaves from where transpiration takes place.

CHAPTER – 2 (REPRODUCTION IN PLANTS)

- **PLANT REPRODUCTION** - Plant reproduction is the production of new offspring in plants, which can be accomplished by sexual or asexual reproduction. **Sexual reproduction** produces offspring by the fusion of gametes, resulting in offspring genetically different from the parent or parents. Asexual reproduction produces new individuals without the fusion of gametes. **Asexual reproduction** produces individuals that are genetically identical to the parent plant.

➤ **PROCESS OF ASEXUAL REPRODUCTION IN PLANTS-**

- **FISSION** - In fission, unicellular organism splits to form new organisms. It is a process of reproduction in organisms such as protozoa and many bacteria. There are two types of fission: Binary fission and multiple fission.
- **BUDDING** - The word bud means small outgrowth. In the process of budding, a small bud grows on the body of parent organism and when the time comes it detaches itself to form a new organism. Yeast undergoes the process of budding.
- **FRAGMENTATION** - Fragmentation occurs in multicellular organisms, be it plants or animals. In this process the multicellular organism breaks into two or more pieces on maturation. Each piece than grows into a new organism. E.G: Spirogyra
- **SPORULATION** - The method of spore formation occurs in both unicellular and multi-cellular organisms. This process takes place in plants. In spore formation, the parent plant produces hundreds of reproductive units called spores in its spore case. When this spore case of the plant bursts, these spores travel in air and land on food or soil. Here they germinate and produce new plants. E.G: Rhizopus.
- **VEGETATIVE PROPAGATION** - This form of asexual reproduction occurs in plants only. In vegetative propagation, parts of old plant like stems, roots and leaves are used to grow a new plant. The buds which are present in dormant state in old plant are provided with suitable conditions like moisture and warmth so that they grow and develop to form a new plant. E.G: Bryophyllum.



HOMEWORK QUESTIONS :

1. Answer the following questions.
 - i. Differentiate between sexual and asexual reproduction.
 - ii. What is vegetative propagation? What are the processes of vegetative propagation.
 - iii. Explain the process sporulation with diagram.
 - iv. Name the process by which yeast reproduces.