

Lesson -4 An Indian -American Woman in Space: Kalpana Chawla
(Unseen Passage)

Before you read

In 1997, an Indian – American, Kalpana Chawla, was part of the international crew aboard the U.S. Space Shuttle, Columbia, becoming the first woman born in India to go into space. Sadly, the second mission in Columbia ended in tragedy.

1. KALPANA Chawla said that she never dreamed, as a child in Karnal, that she would cross the frontiers of space. It was enough that her parents allowed her to attend engineering college after she graduated from Tagore School.
2. After a Bachelor of Science degree in aeronautical engineering, against great opposition from her father, she went for a master’s degree to the United States of America. She later earned her Ph.D. in aerospace engineering. Kalpana Chawla was the first Indian–American woman astronaut to blast off from the launch pad at Cape Canaveral, Florida, and participate in a successful mission in space. Her family from India cheered along with staff at the Kennedy Space Center as they watched the Columbia lift off.
3. Kalpana was born in Karnal, Haryana, but was a naturalised U.S. citizen, married to flight instructor Jean-Pierre Harrison. Besides being an astronaut, she was licensed to fly single and multiengine land airplanes, single-engine seaplanes and gliders. She was also a certified flight instructor. After qualifying as a pilot, Kalpana began to consider another challenge: applying to NASA’s space shuttle program. She was first hired as a research scientist at NASA. In 1994 she was selected by NASA for training as an astronaut.
4. When asked what it was like being a woman in her field she replied, “I really never, ever thought, while pursuing my studies or doing anything else, that I was a woman, or a person from a small city, or a different country. I pretty much had my dreams like anyone else and I followed them. And people who were around me, fortunately, always encouraged me and said, ‘If that’s what you want to do, carry on’.
5. Kalpana’s first space mission in the space shuttle, Columbia, was 15 days, 16 hours and 34 minutes long. During this time she went around the earth 252 times, travelling 10.45 million kilometres! The crew included Japanese and a Ukrainian astronaut. The crew performed experiments such as pollinating plants to observe food growth in space, and tests for making stronger metals and faster computer chips — all for a price tag of about 56 million dollars.
6. On the Saturday night when the news about the Columbia disaster broke, there was shock and disbelief. The town of Karnal spent a sleepless night as thousands of households stayed glued to their television sets in the hope that Kalpana and the crew had somehow survived. A journalist wrote:
She was a heroine. It takes enormous ability to become an astronaut. You need to know a lot about everything, from biology to astrophysics to aeronautical engineering. In this age of super-specialisation, you must have encyclopaedic knowledge to be an astronaut. Her achievement is awe-inspiring.

6. For millions of young Indians, the story of Kalpana Chawla, a girl from a small town who touched the skies, had become an inspiration. In a message that she sent from aboard the space shuttle, Columbia, to students of her college in Chandigarh, Kalpana said, “The path from dreams to success does exist. May you have the vision to find it, the courage to get onto it.... Wishing you a great journey.” There will surely be many who start off on this journey to fulfil their dreams.

A. Answer the following questions.

Q1. Where was Kalpana Chawla born? Why is she called an Indian – American? (para3)

Q2. When and why did she go to the U.S.? Who did she marry? (para2, 3)

Q3. What abilities must an astronaut have, according to the journalist? (para6)

Q4. Describe Kalpana Chawla’s first mission in space. (para5)

Q5. What does Kalpana Chawla say about pursuing a dream? Do you agree with her that success is possible? (para7)

B. We add ‘un-’ to make opposites. For example, true — untrue.

Add ‘un’– to the words below to make their opposites. Then look up the meanings of the words you have formed in the dictionary .*One has been done for you.*

	Opposites	Meanings
1. Identified	Unidentified	which has not been recognised
2. Controlled		
3. Attended		
4. Successful		
5. Important		
6. Educated		
7. Interesting		
8. Qualified		
9. Trained		
10. Answerable		

C. Given below are some words that are spelt differently in British and American English. Fill in the blanks accordingly.

British	American
1. colour	_____
2. _____	labor
3. _____	traveler
4. centre	_____
5. _____	theater
6. _____	organize
7. realise	_____
8. _____	defense
9. offence	_____

NOTE

Dear students,

Do the entire work in the English note book, which you have already made.

There is no need to copy down the passage. Only do the given Q/A and exercises.

The answers of this assignment will be shared with you in the next worksheet.

CLASS 6 SUMMARY

LESSON – 6 CHANGES AROUND US

INTRODUCTION

Most of the things around us are changing all the time. changes that we observe in our daily life are given below:

1. Cooking of food.
2. Burning of paper.
3. Rotting of fruits and vegetables.
4. Growing plants.
5. Ripening of fruits.
6. Rusting of iron.
7. Bursting of crackers.
8. Changing of seasons.
9. Changing water to ice.
10. Inflating balloon.

Some changes are useful while others are harmful. We always try to speed up a useful slow change and slow down a harmful change. As a rule of nature, almost everything in this universe undergoes a change at one time or another. If things remained the same, life would become utterly dull. When we apply paint or oil on an iron object to prevent it from rusting, we have slowed down a harmful change.

CAUSES OF CHANGE AND THEIR EFFECTS

For the various types of changes, there are always certain reasons.

Changes of day and night occur because of the rotation of the earth, in the same way every change has a cause. These causes can bring about change in:

1. **Shape:** When you stretch a rubber band its shape change, if you stretch more it may break.
2. **Size:** A blown up balloon increases in size when kept in the hot sun, increase in the number of cells cause our body to grow in size.
3. **Position:** When you kick a football it moves from its position.
4. **Colour:** If you heat a piece of iron, it becomes red hot.
5. **State:** If you heat water, it change into vapour
6. **Chemical change:** When we cook food , the structure of the molecule that make up food changes.

CLASSIFICATION OF CHANGES

We classify different types of changes on the basis of their properties.

Fast and slow changes.

Fast changes:- Some changes occur within few seconds. These changes are called fast changes. Eg. Burning of paper, burning of fire work.

Slow changes:- These are some changes which may take more time for completion. These changes are called slow changes. Eg. Growth of kids

Reversible and irreversible changes

Changes that occur around us can be broadly categorized as reversible or irreversible depending on whether or not they can be reversed.

Reversible changes: Changes that can be reversed are called reversible changes.

What happens to an ice cream if you do not finish it quickly? It melts. Can you change the molten ice cream back into a solid? Yes, Just keep it in the freezer, molten ice cream can be changed back to its solid form. Thus melting is a reversible change. Melting of butter and chocolate are also reversible changes.

What about changes like condensation, freezing and evaporation of materials? If you take out some ice cubes from the freezer and keep them outside, the ice cubes will absorb heat from the surrounding and melt. When this water is heated for some time, it starts boiling and steam escapes from the container. Now, if you hold a lid over the container, the steam will again liquify or condenses into small droplets of water on coming in contact with the cold lid.

This water can be cooled down further and then kept in the freezer to form ice again. Thus the three physical states of water are reversible and can be changed from one state to another by heating or cooling.

Irreversible changes:



Changes that cannot be reversed are called irreversible changes.

There are a large number of irreversible changes that take place around us. These result in a material being produced, which may or may not be useful. Some examples of changes are given below.

Ripening of fruits is an irreversible change because it is not possible to get back the raw fruits from ripened or mature ones.

Blooming flowers is an irreversible change because flowers cannot change back into buds.

Milk gets spoiled when not refrigerated, particularly in summer. This is called souring of milk, which is an irreversible change. Souring of milk is also done by adding lemon juice to milk for making cottage cheese or paneer.

Burning of paper is an irreversible change. A new substance called ash is left or formed after paper has been burnt. This new substance differs from the paper in its appearance and properties.

Cooking of food is an irreversible change because we cannot get back the ingredients in their original form after cooking them. For example, after a cake is baked using flour, egg, milk, chocolate etc. we cannot get back the ingredients.

Burning of a candle is often cited as an example of physical change because what we see immediately is melting of wax that solidifies on cooling. However, when a candle burns, the wax is undergoing physical changes at the same time first it melts

and the wick in the middle of the wax gets burnt and undergoes chemical change.

Physical and chemical changes:

Changes in which no new substances are formed are called physical changes. For example, breaking of a glass, freezing of water, tearing of paper etc.

Changes in which new substances with different properties are formed are called chemical changes.

Cooking of food, burning of substances are chemical changes as entirely new substances are formed. Burning of a candle wax releases carbon dioxide and water vapour (new substance)

Expansion and contraction of materials:

Now u can write these questions and answers in your copy:

Q1. To walk through a waterlogged area, you usually shorten the length of your dress by folding it. Can this change be reversed?

Ans. Yes, the length of the dress can again be increased by unfolding it. Hence, this change can be reversed.

Q2. You accidentally drop your favourite toy and break it. This is a change you did not want. Can this change be reversed?

Ans. No. This change cannot be reversed.

Q3. A drawing sheet changes when you draw a picture on it. Can you reverse this change?

Ans. If we draw a picture on a drawing sheet with a pencil, we can get back the original drawing sheet by erasing the drawing with an eraser. In this case, the change can be reversed. However, if we draw with a pen, then the original drawing sheet cannot be obtained back because we cannot erase ink. In this case, the change cannot be reversed.

Q.4. Give examples to explain the differences between the changes can or cannot be reversed.

Ans. To explain the differences between changes that can or cannot be reversed, some examples are given below:

1. If we inflate a balloon, the size and shape of the balloon undergoes a change. However, the original size and shape of the balloon can be obtained back by allowing the air to escape from the balloon. This means that the change that occurs by inflating a balloon can be reversed. But, if the balloon bursts after being inflated, then its original size and shape cannot be obtained back. Thus, in this case, the change cannot be reversed.
2. If we fold a piece of paper, then the shape and size of the paper undergoes a change. In this case, the original shape and size of the original paper can be obtained back. Thus, this change can be reversed. However, if we cut a piece of paper, the change in the piece of paper cannot be reversed.
3. After we roll out a chapati from a ball of dough, the chapati can be converted back into a ball. Thus the change occurring can be reversed. But, if we cook the chapati on a tawa, then it cannot be converted back into a ball of dough. Thus, the change is irreversible.

Q. 5. A thick coating of Plaster of Paris (POP) paste is applied over the bandage on a fractured bone, It becomes hard on to keep the fractured bone immobilized. Can the change in POP be reversed?

Ans.5. When water is added to plaster of Paris changes to another substance and on drying it hardens. Once the POP has hardened, Its shape cannot be changed. Therefore, the change in POP cannot be reversed.

Q.6. A bag of cement lying in the open gets wet due to rain during the night. The next day, the sun shines bright. Do you think the changes that have occurred in the cement can be reversed?

Ans. In this case, the changes cannot be reversed. This is because the cement that hardens up after getting wet cannot be obtained back.

Some materials expand on heating and some contract on cooling. Heating makes the particles contract or become tight.

The amount of expansion differs in solids, liquids and gases. Gases expand the most while solids expand the least. Some examples are given below:

Expansion in solids	Expansion in liquids	Expansion in gases
Railway tracks consists of two parallel metal rails joined together. Small gaps, called expansion gaps are deliberately left between the rails as there is an expansion of the rails in hot weather.	Water expands on heating. Try this with the help of an adult. Take a glass filled with water to its brim. Pour the water into a container and heat it (do not boil). Now try to pour the water back into the same glass. The water overflows.	If you keep an inflated balloon in the sun for some time, what will happen? It will grow in size as the air inside it expands on taking heat from the surroundings.

Cooling does the opposite of heating. Cooling causes a material to contract. Solids contract the least while gases contract the most.

Contraction in solids		
If we hold a very hot glass tumbler under cold water, it cracks. This is because the outer surface of the glass comes in direct contact with cold water and contracts more as	We observed that water expands on heating. Can you say what will happen if the water is allowed to cool down and then poured back into the glass? Would it overflow? No, This is	If an inflated balloon is tied at the mouth of the bottle and the bottle is placed in ice cold water, what will happen? The balloon will shrink in size as the air inside the balloon contracts on

compared to the inner surface.	because of contraction.	cooling.
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Applications of expansion and contraction:

Expansion by heating can be used in several everyday activities.

The jammed metal lid of jam jar can be opened by heating. The jar is inverted and just the lid is dipped in hot water. After some time, the lid can be opened easily as the lid gets slightly expanded. The fact that materials expand on heating is used in thermometer comes in contact with a hot object, the mercury expands and its level rises in the glass tube, indicating the temperature.

Why the electric lines are never hung tightly between the poles? Wires in the outside environment are subjected to extreme weather conditions ranging from acute hot to cold temperatures. A tight wire on contraction in winter can be seen between the poles.

Key words:

Reversible changes: A change that can be reversed is called a reversible change.

Irreversible: A change that cannot be reversed is called an irreversible change.

Physical change: A change where no new substances are formed is called a physical change.

Chemical change: A change where new substances with different properties are formed is called a chemical change.

ST. GREGORIOS SCHOOL
SECTOR - 11, DWARKA
CLASS – VI
MATHEMATICS

CHAPTER – 2 WHOLE NUMBERS

Instructions: Please read the instructions for each section and accordingly complete the work. You can use any note book or A4 sheets available at your home. Please maintain the index with proper chapter heading and date. We will check the same once school re-opens.

STUDY MATERIAL

Whole Numbers Definition

The Natural numbers along with zero form the collection of **Whole numbers**.

It is represented as “W” and the set of numbers are 0, 1, 2, 3, 4, 5, 6, 7, 8, 9,.....

Whole Numbers Properties

The properties of whole numbers are based on arithmetic operations such as addition, subtraction, division and multiplication.

Closure Property

Whole numbers are closed under addition and multiplication, i.e.,

If x and y are two whole numbers then $x + y$ or $x \cdot y$ is also a whole number.

Example: $3 + 4 = 7$ (whole number).

$10 \times 5 = 50$ (whole number).

Whole numbers are not closed under subtraction and division.

Example: $5 - 7 = -2$ (not a whole number)

$7 \div 14 = \frac{1}{2}$ (not a whole number)

Commutative Property of Addition and Multiplication

The sum and product of two whole numbers will be the same whatever the order they are added or multiplied in, i.e.,

If x and y are two whole numbers, $x + y = y + x$ and $x \cdot y = y \cdot x$

Example: $10 + 18 = 28 = 18 + 10$.

$4 \times 9 = 36 = 9 \times 4$.

Subtraction and Division of the whole numbers are not commutative.

Example: $7 - 5 = 2 \neq 5 - 7 = -2$.

$$14 \div 7 \neq 7 \div 14.$$

Additive identity

When a whole number is added to 0, its value remains unchanged, i.e., if x is a whole number then $x+0=0+x=x$

Example : $0 + 7 = 7 = 7 + 0$.

Multiplicative identity

When a whole number is multiplied by 1, its value remains unchanged, i.e., if x is a whole number then $x1 = x = 1.x$

Example – $234 \times 1 = 1 \times 234 = 234$

Associative Property of Addition and Multiplication

When whole numbers are being added or multiplied as a set, they can be grouped in any order, and the result will be the same, i.e. if x, y and z are whole numbers then $x+(y+z)=(x+y)+z$ and $x.(y.z)=(x.y).z$

Example: $10 + (5 + 12) = (10 + 5) + 12 = (10 + 12) + 5 = 27$

$$6 \times (7 \times 2) = (6 \times 7) \times 2 = (6 \times 2) \times 7 = 84.$$

The Associative property does not hold for the subtraction and the division of whole numbers.

Example : $8 - (5 - 2) = 5 \neq (8 - 5) - 2 = 1$.

$$100 \div (25 \div 5) = 20 \neq (100 \div 25) \div 5 = 4 \div 5.$$

Distributive Property

If x,y and z are three whole numbers, the distributive property of multiplication over addition is $x.(y+z)=(x.y)+(x.z)$, similarly, the distributive property of multiplication over subtraction is $x.(y-z)=(x.y)-(x.z)$

Example $10 \times (20 + 5) = (10 \times 20) + (10 \times 5)$

$$10 \times (20 - 5) = (10 \times 20) - (10 \times 5).$$

Multiplication by zero

When a whole number is multiplied to 0, the result is always 0, i.e., $x.0=0.x=0$

Example: $813 \times 0 = 0 = 0 \times 813$.

Division by zero

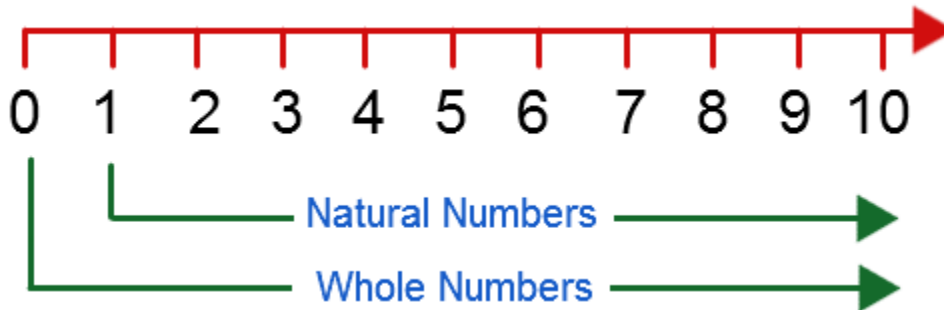
Division of a whole number by 0 is not defined, i.e., if x is a whole number then $x/0$ is not defined.

Difference between Whole Numbers and Natural Numbers

Difference Between Whole Numbers & Natural Numbers	
Whole Numbers	Natural Numbers
Whole Numbers: $\{0, 1, 2, 3, 4, 5, 6, \dots\}$	Natural Numbers: $\{1, 2, 3, 4, 5, 6, \dots\}$
Counting starts from 0	Counting starts from 1
All whole numbers are not natural numbers	All Natural numbers are whole numbers

Whole numbers on Number line

Below figure will help us to understand the difference between the whole number and natural numbers :



Easy Way to Remember the Properties of Whole Numbers

Property	Addition	Subtraction	Multiplication	Division
Closure	Yes	No	Yes	No
Commutative	Yes	No	Yes	No
Associative	Yes	No	Yes	No

Important points-

- a. The smallest natural number is 1.
- b. Zero is the smallest whole number.
- c. All natural numbers are whole numbers , but all whole numbers are not natural numbers.
- d. There is no largest whole number.
- e. If you add 1 to the number , we get its successor.
- f. If we subtract 1 from the number , we get its predecessor.
- g. The whole number zero has no predecessor.
- h. If the product of two whole numbers is zero, we can say that either one number or both of them will be zero.
- i. If the product of two numbers is 1, we can say both of them will be 1.

SECTION: I

A. Understand below questions and solutions as given and write them neatly in your note book or A4 sheets.

Examples

1. Write the next three natural numbers after 50199.
Ans. 50200, 50201, 50202.
2. Write the three whole numbers occurring just before 90001.
Ans. 90000, 89999, 89998.
3. How many whole numbers are there between 75 and 104?
Ans. $(104 - 75) + 1 = 30$
4. The predecessor of a two digit number is never a single digit number. State true or false.
Ans. False . predecessor of 10 is 9 which is a single digit number.
5. The successor of a two digit number is always a two digit number . State true or false.
Ans. False. Successor of 99 is 100 which is three digit number.
6. Find the sum by suitable rearrangement

$$\begin{aligned} &837+208+363 \\ &= (837 + 363) + 208 \\ &= 1200 + 208 \\ &= 1408. \end{aligned}$$

$$\begin{aligned} &1962 + 453 + 1538 + 647 \\ &= (1962 + 1538) + (453 + 647) \\ &= 3500 + 1000 \\ &= 4500 \end{aligned}$$

7. Find the product by the suitable rearrangement.

a. $8 \times 291 \times 125$
 $= (8 \times 125) \times 291$
 $= 1000 \times 291$
 $= 291000$

b. $125 \times 40 \times 8 \times 25$
 $= (125 \times 8) \times (40 \times 25)$
 $= 1000 \times 1000$
 $= 1000000$

8. Find the value of the following.

a. $297 \times 17 + 297 \times 3$
 $= (297 \times 17) + (297 \times 3)$
 $= 297 \times (17 + 3)$
 $= 297 \times 20$
 $= 5940$

b. $81265 \times 169 - 81265 \times 69$
 $= (81265 \times 169) - (81265 \times 69)$
 $= 81265 \times (169 - 69)$
 $= 81265 \times 100$
 $= 8126500$

c. $(3845 \times 5 \times 782) + (769 \times 25 \times 218)$
 $= (19225 \times 782) + (19225 \times 218)$
 $= 19225 \times (782 + 218)$
 $= 19225 \times 1000$
 $= 19225000$

9. Find the product using suitable properties.

a. 258×1008
 $258 \times (1000 + 8)$
 $= (258 \times 1000) + (258 \times 8)$
 $= 258000 + 2064$
 $= 260064$

b. 854×102
 $= 854 \times (100 + 2)$
 $= (854 \times 100) + (854 \times 2)$
 $= 85400 + 1708$
 $= 87108$

10. A taxi driver filled his car petrol tank with 40 litres of petrol on Monday. The next day he filled the tank with 50 litres of petrol. If the petrol costs Rs 44 per litre, how much did he spend in all on petrol?

Ans. Quantity of petrol filled on Monday = 40 litres

Quantity of petrol filled on next day = 50 litres

Cost of petrol per litre = Rs 44

Total money spent in all on petrol

$$= (44 \times 40) + (44 \times 50)$$

$$= 44 \times (40 + 50)$$

$$= 44 \times 90$$

$$= \text{Rs. } 3960$$

11. Find the product using distributive property.

a. 4275×125

Ans. 4275×125

$$= 4275 \times (100 + 20 + 5)$$

$$= (4275 \times 100) + (4275 \times 20) + (4275 \times 5)$$

$$= 427500 + 85500 + 21375$$

$$= 534575$$

b. 925×99

Ans. 925×99

$$= 925 \times (100 - 1)$$

$$= (925 \times 100) - (925 \times 1)$$

$$= 92500 - 925$$

$$= 91575.$$

SECTION: 2

Solve below worksheet and write them neatly in your note book or A4 sheets.

WORK SHEET (WHOLE NUMBERS)

1. Fill in the blanks and name the property.
 - a. $537 \times 15 = \underline{\quad} \times 537$ _____
 - b. $235 \times \underline{\quad} = 235$ _____
 - c. $7 \times (3+5) = 7 \times 3 + 7 \times \underline{\quad}$. _____
 - d. $111 \times 0 = \underline{\quad}$. _____
 - e. $12 + (47 + 88) = (\underline{\quad} + 47) + 88$. _____
 - f. $\underline{\quad} + 459 = 459$. _____
2. Find the sum using suitable rearrangement.
 - a. $24 + 175 + 76$
 - b. $2062 + 353 + 1438 + 547$
 - c. $137 + 34 + 63 + 66$
 - d. $265 + 1567 + 735$
3. Find the product by suitable rearrangement.
 - a. $8 \times 786 \times 125$
 - b. $15 \times 8 \times 40 \times 225$
 - c. $625 \times 279 \times 16$
 - d. $285 \times 5 \times 60$
4. Find the value of the following.
 - a. $496 \times 13 + 87 \times 496$
 - b. $473 \times 119 - 473 \times 19$
 - c. $3496 \times 13 + 87 \times 496$
 - d. $473 \times 119 - 473 \times 19$
 - e. $54279 \times 92 + 8 \times 54279$
5. Find the product using suitable properties.
 - a. 738×103
 - b. 849×105
 - c. 97×435
6. Fill in the blanks
 - a. 456 lies between _____ and _____
 - b. The additive identity of whole numbers is _____.
 - c. The predecessor of smallest 4 digit number is _____.
 - d. Whole numbers are not associative under _____ and _____.
 - e. _____ has no predecessor in whole numbers.
 - f. The whole number which cannot be used as a divisor is _____.
 - g. The difference of two whole numbers need not be a whole number. Thus the _____ property does not hold good in subtraction of whole numbers.
 - h. The multiplicative identity for whole numbers is _____.

7. State true or false
- a. Any nonzero whole number divided by itself gives the quotient 1.
_____.
 - b. All whole numbers are natural numbers. _____
 - c. Zero is the smallest whole number. _____
 - d. Every whole number has its predecessor. _____
 - e. If $a \times 7 = 0$, then $a = 0$
 - f. 1 is divided by zero is zero.
 - g. The predecessor of every two digit number is a single digit number.
8. Find the product of the largest 3 digit number and the largest two digit number using distributive property.
9. A vendor supplies 32 litres of milk to a hotel in the morning and 68 litres of milk in the evening. If the milk costs Rs45 per litre, how much money is due to the vendor per day? (use distributive property)
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Class – VI (Session 2020-21)
Social Science (Worksheet – 1)

Geography (Chapter – 1 The Earth in the Solar System)

Q1. Choose the correct option:

- (a) The largest planet in the solar system is
(i) Neptune (ii) Jupiter (iii) Mars
- (b) Small heavenly bodies that revolve around the planets
(i) Satellites (ii) Dwarf Planet (iii) Meteorites
- (c) The galaxy which we belong to
(i) Constellations (ii) Akash Ganga (iii) Comets
- (d) The word planet is derived from the Greek word 'Planetai' means
(i) wanderer (ii) solar (iii) cloud

Q2. Give answer

- (i) Light travels at the speed of
(ii) Asteroids are found between the orbit of
(iii) The famous astronomer of ancient India was

Q3. Answer in short

- (i) What are Asteroids?
(ii) What is an orbit?

Q4. Answer the following questions.

- (i) Why we cannot live on moon? Give reasons
(ii) Meteors are also known as shooting stars.

Q5. Draw a neat and labelled diagram of solar system. (On any available sheet)

Q6. Draw and name any one constellation.

Civics (Chapter – 3 What is Government?)

Q1. Choose the correct option:

- (a) A citizen can vote at an age of
(i) 25 years (ii) 18 years (iii) 22 years
- (b) A monarch is a
(i) hereditary head (ii) appointed head (iii) elected head
- (c) In democratic form of government, the representatives are elected for a period of
(i) four years (ii) till he completes 60 years of his age (iii) five years

- Q2. Correct and rewrite the given statements.
- (i) In democracy leaders are elected for life term.
 - (ii) Suffrage movement was started after second world war.
 - (iii) The judiciary is responsible for making law.
 - (iv) The state level is looking after the affairs related to national security.

History (Chapter – 1 What, Where, How and When?)

- Q1. Choose the correct option
- (a) The process to understand the scripts and languages of the inscriptions
 - (i) Decipherment
 - (ii) Archaeology
 - (iii) Manuscript
 - (b) In olden days, the people preferred to settle near
 - (i) rivers
 - (ii) mountains
 - (iii) desert
 - (c) Kurnool caves are located in
 - (i) Karnataka
 - (ii) Andhra Pradesh
 - (iii) Maharashtra
 - (d) A person who studies objects, tools and remains of ancient sites
 - (i) Early humans
 - (ii) Archaeology
 - (iii) Archaeologists
- Q2. Correct and rewrite the given statements.
- (i) Manuscripts were written in Hindi
 - (ii) Ordinary men and women often kept a record of their deeds.
 - (iii) The study of past is known as geography.
- Q3. How did our country get its name?
- Q4. Mention some archaeological sources.

(Do these assignments on loose sheets subject wise and compile them)

कक्षा - ध्वनी

व्याकरण

DATE: 24 - 04 - 2020

वर्ण माला

वर्ण :- भाषा की सबसे छोटी इकाई को वर्ण कहते हैं।
वह छोटी से छोटी ध्वनि या मुँह से निकली आवाज़,
जिसके और टुकड़े न किए जा सकें, वर्ण कहलाती है।

वर्णमाला :- वर्णों के समूह को 'वर्णमाला' कहते हैं।
हिंदी में 52 वर्ण हैं।

हिंदी की वर्णमाला :- स्वर और व्यंजन मिलाकर वर्णमाला बनती है।
जो इस प्रकार है :-

स्वर :- अ आ इ ई उ ऊ (ऋ) (ॠ) (अं अः) = (13)

व्यंजन :-

कवर्ग :- क ख ग घ ङ

चवर्ग :- च छ ज झ ञ

टवर्ग :- ट ठ ड ढ ण

तवर्ग :- त थ द ध न

पवर्ग :- प फ ब भ म

अंतस्थ :- य र ल व = (33)

अभ्य :- श ष स ह

अन्य :- इ ऋ = (2)

संयुक्तव्यंजन :- क्ष ज्ञ श्र ञ् = (4)

(Total = 52)

संयुक्त व्यंजन से बने कुछ शब्द :-

क्ष = क + ष = कक्षा, क्षत्रिय
त्र = त + र = त्रिगूल, मित्र
ज्ञ = ज्ञ + ञ = ज्ञान, ज्ञात
श्र = श + र = श्रवण, श्रमिक

द्विविध व्यंजन

त् + त = त्त = गत्ता, पत्ता
क् + क = क्क = मक्का, पक्का
व् + व = व्व = डिब्बा, अब्बू
म् + म = म्म = सम्मान, अम्मा

प्रश्नोत्तर :-

प्रश्न 1 स्वर और व्यंजन में क्या अंतर है ?

उत्तर स्वर जो वर्ण बिना किसी रुकावट के मुख से उच्चारित (बोले) होते हैं वे स्वर कहलाते हैं। ये वर्ण स्वतंत्र होते हैं।
जैसे :- अ, आ, इ, ई, उ, ऊ आदि।

व्यंजन :- जो वर्ण, स्वरों की सहायता के बिना बोले नहीं जा सकते यानि व्यंजन वर्णों को उच्चारण के लिए स्वरों की सहायता की आवश्यकता होती है। स्वरों के बिना वह अधूरे माने जाते हैं।

जैसे :- क, ख, ग, घ आदि।

प्रश्न 2 :- संयुक्त व्यंजन और द्विविध व्यंजन में क्या अंतर है ?

DATE: - -

उत्तर संयुक्त व्यंजन :- दो भिन्न व्यंजनों के परस्पर संयोग को संयुक्त व्यंजन कहते हैं। ये मुख्य रूप से चार होते हैं।
जैसे - क्ष, ज्ञ, श्र, ञ।

द्विविध व्यंजन :- जब दो एक जैसे व्यंजन मिलकर प्रयोग में लाए जाते हैं यानि साथ-साथ उच्चारण में आते हैं तो द्विविध व्यंजन कहलाते हैं।
जैसे - कक (पक्का) च्य = (बच्चा)
त्त (गत्ता) आदि।

प्रश्न 3 :- अनुस्वार (ँ) और अनुनासिक (ं) अंतर बताओ।

उत्तर अनुस्वार (ँ) जिस स्वर के उच्चारण में हवा केवल नाक से निकलती है और उच्चारण अधिक जोर से होता है।
वर्ण के ऊपर (ँ) बिंदु लगाया जाता है, उसे अनुस्वार कहते हैं।
जैसे - चंचल, अंडा, गंदा आदि।

अनुनासिक - इन में ध्वनियों को बोलते समय हवा नाक और मुँह दोनों से निकलती है।
इसके लिए (ं) शब्द के ऊपर लगाया जाता है।
जैसे - हंस, मुँह आदि।

DATE:

प्रश्न 4: वर्ण-विच्छेद करके लिखो यानी स्वर और व्यंजन वर्ण अलग करके शब्द का सिद्ध

$$(1) \text{ शत} = \text{र} + \text{आ} + \text{त} + \text{अ}$$

$$(2) \text{ प्रशान्त} = \text{प} + \text{र} + \text{आ} + \text{अं} + \text{त} + \text{अ}$$

प्रश्न 5: दिए गए वर्ण-विच्छेद से शब्द लिखो।

$$(1) \text{ क} + \text{अ} + \text{म} + \text{अ} + \text{ल} + \text{अ} = \text{कमल}$$

$$(2) \text{ म} + \text{आ} + \text{स} + \text{अ} = \text{मास}$$

$$(3) \text{ म} + \text{आं} = \text{मां}$$

$$(4) \text{ कु} + \text{उ} + \text{म} + \text{आ} + \text{र} + \text{अ} = \text{कुमार}$$

$$(5) \text{ ट} + \text{र} + \text{अ} + \text{क} + \text{अ} = \text{ट्रक}$$

