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SYLLABUS

DELHI PUBLIC SCHOOL– GANDHINAGAR

SESSION 2022-23

Class: 4

Subject: Environmental Science

AG

MONTH	TOPICS	ACTIVITIES / PRACTICALS
APRIL and MAY	L- 1 GREEN PLANTS L- 2 HOW PLANTS SURVIVE	 AIP : Paste pictures showing flora & fauna of Maharashtra state SEA – Paste pictures of 5 plants each that have compound leaves and name them. SDG: GOAL-13-CLIMATE ACTION Make a collage showing drastic effects of climate change on forests. Write 5 strategies to integrate in daily life to reduce climate related disasters.
JUNE L- 3 ANIMALS AND THEIR YOUNG ONES > Role play on JULY L- 4 HOW ANIMALS SURVIVE L- 5 FOOD: OUR BASIC NEED SDG: GOAL-14 Make a poster s and write few lin protect it from p > Write 5 pc		Role play on life cycle of butterfly.
	 SDG: GOAL-14 -LIFE BELOW WATER Make a poster showing marine & costal biodiversity and write few lines on how to sustainably manage& protect it from pollution & overexploitation. > Write 5 points in your scrapbook to prevent food wastage. 	
	PT 1 SYLLAB	US: L- 1 & 2
AUGUST L- 6 DIGESTION AND ROLE OF paste pictures of dise AUGUST MICROBES due to poor oral hygi	 Make a chart on Oral hygiene and paste pictures of diseases or health risk due to poor oral hygiene. Movie "Komal" on Good Touch & Bad touch. 	
SEPTEMBER	SEPTEMBER REVISION OF TERM I CHAPTERS	
	HALF YEARLY EXAM SY	LLABUS: L- 1, 2, 3, 4, 5, 6.

GANDHIN

CHAPTER 1



GREEN PLANTS

1)Label the parts given in the following diagram:





e) Food prepared by the plants is sent to various plant parts through which plant part?
 Answer : ______

3)Identify the following plants:



Subject Enrichment Activity 1

Paste pictures of 5 plants each that have compound leaves and name them.

AIP (Art Integrated Project) Paste pictures showing flora & fauna of Maharashtra state CHAPTER 2

HOW PLANTS SURVIVE

1)Answer the following questions:

i) Abhi knew that plants adapt themselves to the conditions in the environment in which they live. He observed a plant and noticed the following characteristics:



But he is confused to identify what kind of plant it is. Can you help him?

- A) It is a plant that grows in plains.
- **B)** It is a plant of hilly areas.
- C) It is a plant that lives under water.
- D) It is a plant that grows in marshy areas.

ii) Given below is a list of some plants and the habitats in which they live. Which one is wrongly matched?

PLANT	HABITAT
A) MANGROOVE	MARSHY AREAS
B) COCONUT	COASTAL AREAS
C) CACTUS	HILLY AREAS
D) MANGO	PLAINS

iii)Match the following plants in Column-I with their examples in Column-II.

Column-I	Column-II
----------	-----------

р.	Conifers	i.	Pitcher
q.	Insectivorus plant	Ii,	Cactus
r.	Desert plant	iii.	Pine

- A) p-i, q-ii, r-iii
 B) p-ii, q-i, r-iii
 C) p-iii, q-i, r-ii
- D) p-iii, q-ii, r-i
- iv) Which of the following statements is FALSE regarding hilly trees like the Pine?
- A) They do not have flowers.
- **B)** They are dome shaped.
- C) They are conifers.
- D) Their leaves are needle-shaped.
- v) Venus flytrap plant closes its leaves to trap insects. This shows that the plant is
- A) reproducing.
- **B)** respiring.
- C) responding to stimulus.
- D) moving from one place to another.
- 2) Identify any three aquatic plants shown in the picture given below & write one adaptive feature of each:



Answer: 1)	
Adaptive feature:	
2)	
Adaptive feature:	
3)	
Adaptive feature:	

SDG: GOAL-13-CLIMATE ACTION

Make a collage showing drastic effects of climate change on forests. Write 5 strategies to integrate in daily life to reduce climate related disasters.

APPENDIX CONTRACTOR CONTRACTOR

Revision For PT-1

1) Name the openings through which air enters inside the leaf.

2) What are deciduous trees?

3) How do plants use the food they prepare?

4) Write the adaptations found in desert plants.

5) Explain the process of photosynthesis.

6) Describe how plants and animals are independent?

7) What are three types of Aquatic plants?

8) Differentiate between plants in plains and plants in desert.

9) Write a note on: (i) Venus's fly trap (ii) Saprophytes

10)What happens to food prepared by plants?

11) Describe the detailed structure of a leaf with a well labelled diagram.

13) What are epiphytes give examples?

14)Write any five uses of plants.

Delhi Public School, Gandhinagar

Periodic Test 1 (2022-23)

Class : IV

EVS

Date: 00.07.22

Time: 1 hours

M. Marks : 20

Instructions: -

- (i) All the questions are compulsory.
- (ii) Answer the questions as per the instructions.

Q-I Choose the correct option:

- 1. All energy on the Earth comes from-
 - (i) sun (ii) rocks (iii) river (iv) mountain
- 2. Why the upper side of leaf darker green than the lower side: -
 - (i) Make plant colourful
 - (ii) Because more amount of chlorophyll is present on upper surface of leaf (to trap sunlight).
 - (iii) For plants look more attractive.
 - (iv) None of the above
- 3. Why conifers have woody cones instead of flowers?
 - (i) because of extremely cold climate.
 - (ii) to prevent flower withering.
 - (iii) woody cones protect the seeds effectively.
 - (iv) all of the above
 - 4. What energy transformation occurs during Photosynthesis:
 - (i) radiant to chemical
 - (ii) chemical to radiant
 - (iii) all of the above
 - (iv) none of the above
 - 5. Ravi tried to grow Neem tree and Peepal tree in marshy areas to save the

environment with in a few week plants died. What could be the reason for it.

(i)They cannot grow in saline water

(ii)they do not have breathing roots

(iii)both (i) and (ii)

- (iv) none of the above
- 6. Since India is agriculture-based country, we produce a lot of crops which have waste parts (after harvesting) so instead of burning them what could be done to save the environment from harmful gases released (due to burning)
 - (i) used to produce paper
 - (ii) can be turned into manure

6×1=06

(iii) can be used to produce biofuel.

(iv)all of the above

Q-II Do as directed:

1. Fill in the blanks-

_____ trees do not shed their leaves.

2. Match the following-

Column A	Column B
(i) marsh	(a) Pine
(ii) conifers	(b) mangrove

- 3. Write weather the following statements are true or false-
- i) Lotus is a fixed plant.
- ii) Jute is a plant fibre.
- 4. Give one word for the following-Plants that live on land.
- Q-III Answer the following questions:
 - 1. Answer in short-
 - i) Identify the following aquatic plants:





ii) Define:

a) compound leaf b) saprophytes

- 2. Answer in detail-
- i) Draw a labelled diagram to show the process of photosynthesis
- ii) Write three features of plants that grow in desert.

CHAPTER 3 ANIMALS AND THEIR YOUNG ONES

1) Draw the structure of a bird's egg in the box given below & label its parts:

2×2=04

2×3=06

4×1=04



2) Draw the life cycle of the egg as shown in the picture given below (in your scrap book):



3)Label the life cycle of the frog:

Frog Life Cycle Diagram



iii)Incubation:	
iv)Life Cycle:	
i)Marsupial:	
4)Label the life cycle of cockroach:	
-	
	1

Competency Based Question



- A) Their eggs have hard shells.
- **B)** Their eggs must be incubated.
- C) They give birth to live young one.
- D) They do not look after their young.

Answer: C

- **<u>O. 2</u>**)- Which of the following young ones resemble their parents?
- A) caterpillar B) mosquito
- C) tadpole D) Nymph

Answer: D

<u>Q. 3</u> Aruna studied two animals P and Q. At the end of her study, she made her observations as follows:

Observation	Animal P	Animal Q
Eggs are laid on land.	V	×
There are 4 stages in the life cycle.	×	
It has six legs	\checkmark	\checkmark

Animal P	Animal Q
Butterfly	Frog

B)

Animal P	Animal Q
Cockroach	Mosquito

C)

Correct Answer: B(Animal 'P' is a cockroach and animal Q is a mosquito).

<u>Q. 4</u> The growing chick in the yolk is called

- A) larva.
- B) pupa.
- C) embryo.
- D) cocoon.

Answer: C

A)

<u>Q.5</u> The animals which suckle their young ones are called

A) mammals.

- **B**) insects.
- C) reptiles.
- D) cocoons.

Answer: A



CHAPTER 4 HOW ANIMALS SURVIVE

i)Camouflage is a kind of adaptation in which an organism deceives others by merging its colour with that of its surroundings. Which of the following colours will best suit a chameleon to hide from its enemies in a forest when it sits on branch of a tree?

- A) Red
- B) Blue
- C) Green
- D) Brown
- ii) Match the following animals with their adaptations that help these animals to survive in winter.



- a) P-ii,Q-i,R-iii
- b) P-i,Q-ii,R-iii
- c) P-iii, Q-ii, R-iii
- d) P-ii,Q-iii,R-i
- iii) Observe the figures given below.



How do these animals protect themselves from their enemies?

- A) They live in groups.
- B) They pretend to be dead.
- C) They give off bad smell.
- D) They attack their enemies with their claws.
- iv) John jotted down some notes about the movement of an animal X.



Which of the following animals can Animal X be?

- A) Rabbit
- **B)** Duck
- C) Bullfrog
- D) Goldfish

v)Tigers and leopards have stripes on their bodies. This adaptation helps them to:

- A) keep their bodies cool.
- B) keep their bodies hot.
- C) mix with the surroundings.
- D) look beautiful.

Gorilla, rhino, sea-turtles, Leopard, Tiger, dinosaurs, dodo, Woolly Mammoth, Great Indian Bustered

Endangered animal	Extinct animal
	and the second sec

SDG: GOAL-14 -LIFE BELOW WATER

Make a poster showing marine & costal biodiversity and write few lines on how to sustainably manage& protect it from pollution & overexploitation.



CHAPTER 5 FOOD: OUR BASIC NEED



A **food pyramid** tells us what to eat to make our diet a healthy one. The different levels represent different food groups. The food items at the bottom of the pyramid are meant to be eaten in much greater quantity than those at the top of the pyramid of food chart.

Identify the food item show in the picture and segregate them according to the food groups:



2)Write down (in the lines given below) what must be included in a balanced diet for school children:



3) Circle the correct answer:

i)Refrigeration process is used for preserving food. It is a process by which temperature is-

increased decreased	not changed
---------------------	-------------

ii) The following are used as preservatives-

nato
r

iii) Canning is the process which makes food-

RottenPreservedNone of these

Subject Enrichment Activity 2

Write 5 points in your scrapbook to prevent food wastage.



DIGESTION AND ROLE OF MICROBES

1)Observe the diagrams given below and answer the question:



2)Observe the structure of a tooth given below.



i)Identify and write the part labelled 'X' in the given figure.

Answer: _____

ii) The surface or the hardest layer on a tooth is the -

Answer:

3) Write the functions of the labelled parts of human digestive system (shown in the diagram) below:

	Liver Stomach Large intestine
-	Small intestine
1	
	27 C
	of two diseases caused by the following microbes:
Bacteria: Virus:	
Fungi:	
Protozoa:	
	AIL (Art Integrated Learning) art on Oral hygiene and paste picture

diseases or health risk due to poor oral hygiene.

CHAPTER 7

KEEPING SAFE

1)What first aid you will be giving in the following situation:

i) Minor cuts:

ii) Minor burns:

- 2)Choose the correct safety measure in the following situations:
- i)While playing at the swings, we should
- A) wait for our turn.
- **B**) not allow others to use the swings.
- C) fight for swings.
- ii) Which of the following is NOT the safe place for the children to fly kites?
- A) Open ground
- **B)** Terrace
- C) Playground
- iii) if an accident occurs, I will
- A) Panic.
- **B)** Arrange for first-aid and a doctor.
- C) Call a crowd and surround the injured person.

Subject Enrichment Activity 3 Movie "Komal" on Good Touch & Bad touch

CBE BASED WORKSHEET

1)Observe the following food pyramid and answer questions:.



The food items in level 1 are rich in which nutrient?

2) The man shown in the figure is obese because of the over intake of which nutrient?



3) Camouflage is a kind of adaptation in which an organism deceives others by merging its colour with that of its surroundings. Which of the following colours will best suit a chameleon to hide from its enemies in a forest when it sits on branch of a tree?

4) Which of the following	can complete the	given box.
---------------------------	------------------	------------

Herbivore	Carnivore	Scavenger	
Goat	Lion	?	

5) Which chemical helps to trap sunlight in plants?

6) During which of the following times of the day does the process shown here takes place in



Plants?

7) When iodine is added to a starch solution, the color is changed to_

QUESTION BANK

CHAPTER 1: GREEN PLANTS

Q.1) One word or one sentence answers: -

i) Name the green substance which leaves have.

ii) Name the openings through which air enters inside the leaf.

iii) Through which part does carbon dioxide enter the leaf?

Q.2) Short Questions: -

i) Why is sunlight important for a plant to make its food?

ii) How do plants use the food they prepare?

iii) Where do plants store their extra food?

Q.3) Long Questions: -

i) Explain the process of photosynthesis with the help of a diagram

ii) Why should we maintain the balance between the plants and animals in natur

CHAPTER 2: HOW PLANTS SURVIVE

1)One word or one sentence answers: -i)What do we call the plants which do not shed their leaves throughout the year?ii)Where are Conifers found?

iii)In which places mangroves grow?

2)Short Questions: i)Write the adaptations found in desert plants.
ii)What are fungi? From where do they get their food?
iii)Give two examples of- (a) Insectivorous plants (b) Fungi (c) Desert plants (d) Conifers

3)Long Questions: i)Write a short note on aquatic plants. ii)What are breathing roots?

CHAPTER 3: ANIMALS AND THEIR YOUNG ONES

1)Answer the following questions in one word or one sentence:

i)Name the process in which the mother bird sits on the eggs to keep them warm.

ii)Define life cycle.

iii)What are the larvae of butterfly and cockroach called?

2)Answer the following questions in short:

i)What is moulting? Give two examples.

3)Answer the following questions in long: i)Explain the life cycle of the following with diagram: - (i) Frog (ii) Butterfly

CHAPTER:4 HOW ANIMALS SURVIVE

1)Answer the following questions in one word or one sentence:

i)What is a habitat?

ii)Give two examples of animals that hibernate.

iii)What is migration?

2)Answer the following questions in short :

i)Define Camouflage. Give two examples.

3)Answer the following in detail :

i) How do the following animals protect themselves from their enemies explain with examples.

CHAPTER 5: FOOD: OUR BASIC NEED

1)One word or one sentence answers: -

i)Define nutrients.

ii)Give two sources of carbohydrates.

iii)What is the other name of roughage?

2) Answer the following questions in short:

i)Why should we preserve food?

ii)What are the uses of water in our body?

iii)Why do we need food?

3) Answer the following questions in long:

i)Write a short note on fats.

ii)What is roughage? How is it important?

iii)Name the four groups with two examples into which food items are divided.

iv)How do we preserve food?

CHAPTER:6 DIGESTION AND ROLE OF MICROBES

1)Answer the following questions in one word or one sentence:
i)How many kinds of teeth do we have?
ii)To whom should we go to get our teeth checked?
iii)Which nutrients our food should contain to have healthy teeth?

2)Answer the following questions in short :i)Name the sets of teeth human beings have during their lifetime.ii)Explain enamel, dentine and pulp.

Iii0Write any three uses of bacteria.

3)Answer the following in detail :

i)Name the different kinds of teeth humans have. Write their number, function and shape in a tabular manner

The state of the s	Delhi Public School, Gandhina	agar	
	Half Yearly Examination (2022-23)		
Class IV	EVS	Date:00.09.22	
Time: 2½ hours		M. Marks: 80	
Name:	Sec:	Roll No.:	

Instructions:

- (i) All the questions are compulsory.
- (ii) Answer the questions as per the instructions.

Q-I Choose the correct option:

- Chlorophyll is a _____ coloured pigment present in the leaves of the plants.
 (i)blue (ii)green (iii)red (iv)yellow
- 2. Root does not perform which task for the plant?
 - (i) Absorb the water from the soil.
 - (ii) Firmly held the plant in fixed position.
 - (iii) All the above
 - (iv) none of the above
- **3.** Which one of the following statements is correct for the plants and animals?
 - (i) Animals prepare their own food but plants depend on animals for their food.
 - (ii) Plants prepare their own food but animal depend on plants for their food.
 - (iii) Both plants and animals do not prepare their own food.
 - (iv) Both plants and animals do not prepare their own food.
- 4. Shreya plucked a lotus plant from a pond near her house. She observed that it has a long hollow stem. Can you explain the function of the stem?(i) To help leaves float on water (ii) To absorb soil
 - (iii) To make the flower beautiful (iv) To fix the plant to the bottom of the pond
- 5. In cactus plants, photosynthesis occurs in

(i)leaves(ii)spines(iii)root(iv)stem

6. Mangroves develop aerial roots. This is an adaptation to the

(i) type of soil (ii) temperature (iii) amount of water available (iv) amount of rain

7. Tadpoles resemble

(i)frog (ii) fish (iii)cocoon (iv)eggs

- 8. Which of the following is possessed by a tadpole but not by an adult frog?(i)eye (ii)tail (iii)kidney (iv)lungs
- 9. A student observed that birds sit on their eggs before the eggs are hatched into young ones. The reason is
 (i) to protect the egg. (ii) to keep the egg warm so that it hatches. (iii) to hide the egg from others. (iv)none of these
- 10. Which of the following insects go through a four-stage life cycle?

(i)hen (ii)frog (iii)butterfly (iv)cockroach

11. The feet of frogs and ducks are webbed. This adaptation helps them in-

(i) holding branches tightly. (ii) swimming in water. (iii) grabbing and eating insects. (iv)none of these

20×1=2 0

- 12. Which of these helps the whale to protect itself in cold temperatures?(i)long tail(ii)thick fur (iii) thick layer of fat under the skin (iv)hump
- 13. Which of the following parts of digestive system is the longest?(i)stomach (ii)large intestine (iii) small intestine (iv)esophagus
- **14.** I have a crown; I am not a king.

I have a neck; I am not an animal.

have a root, I am not a plant.

What does 'I' represent in the above riddle?

(i)bacterium (ii)tooth (iii) nail (iv)tongue

15. Which of the following statements about saliva are correct?

(i) Saliva is mainly water. (ii) Saliva makes it easier for us to swallow our food.(iii) Saliva softens our food. (iv)all of the these

16. In research, it is proved that in old age one should take more quantity of proteins in diet than any other group of food. Which of the following justifies this?

(i) Proteins help to repair and build muscles. In old age, muscle growth increases, hence protein intake should be more.

(ii) Proteins help to repair and build muscles. In old age, muscles become weak, hence protein intake should be more.

(iii) Proteins give energy to the body. In old age, the body needs more energy to work, hence protein intake should be more.

(iv)None of the above

17. Dehydration is a method of preserving food by

(i)adding sugar (ii)adding salt (iii)drying (iv)boiling

18. Which of the following processes is used by Asma to preserve milk?

(i) She adds salt solution to the milk. (ii) She boils the milk and keep it in a refrigerator. (iii) A sugary syrup solution is added to the milk. (iv)none of these

19. Which of the following has the highest amount of energy in them?

(i)carbohydrates(ii) fats(iii)vitamin (iv)minerals

20. Which of the following vitamins is prepared in our body with the help of sunlight?

(i) Vitamin A (ii) Vitamin B (iii) Vitamin D (iv) Vitamin k

Q-II Answer the following questions in one word:

- **1.** What is the broad part of the leaf called?
- 2. Where does a pine tree grow?

10×1=1 0

- 3. What are floating clusters of a frog's egg called?
- 4. What do we call a baby cockroach?
- 5. Mammals that carry their babies in their in a pouch in their bodies are called?
- 6. What are animals that live both on land and water known as?
- 7. In which form is energy stored in our body?
- 8. Name a food item rich in calcium.
- 9. How many sets of teeth do we have?
- **10.** Bile is the digestive juice produced by which gland?

Q-III Answer the following questions in short:

1. Look carefully at the classification table given below.



What could P and Q represent?

- 2. Why do animals camouflage? Give two examples of animals that camouflage.
- Give name of two diseases caused by-(i)Virus (ii)Bacteria

Q-IV Answer the following questions in detail:

- 1. Draw a labelled diagram to show the internal structure of an egg.
- 2. Look at picture given below and answer the questions that follow:



- (i) What is the habitat of this animal?
- (ii) Write any two adaptive features of this animal.

 $3 \times 2 = 06$

 $2 \times 3 = 06$

- **1.** What is food preservation. Explain any two methods of food preservation.
- **2.** Describe the four types of teeth.





Chapter 8- Clothes we wear

ACTIVITY: Traditional dress of different states: paste pictures of dresses, mention the fabric used for it, write about the source of fabric.

Students can be asked to wear traditional dress of their choice and do the traditional folk dance of that area.

WORKSHEET

- Q 1 Fill in the blanks:
 - 1. Is a man-made material.
 - 2. Cotton and jute are examples of fibres.
 - 3. Silk is extracted from the
 - 4. Clothes protect us from and
 - 5. We wear clothes in summer.
- Q 2 Write 'T' for True and 'F' for False:
 - 1. Rain coats and umbrella are made from nylon.
 - 2. We wear clothes made of cotton and jute in winter.
 - 3. We wear different clothes at different times of the year.
- Q 3 Choose the correct answer:
 - 1. Which of the following is not a synthetic fibre?
 - a) Lycra b) flax c) rayon d) polyester
 - 2. Which of the following statements is false?
 - a) Cotton absorbs heat b) lawyers wear black coat
 - c) clothes protect us from dust d) clothes are made only from natural fibres

Q 4 Name the traditional dress:





b)


Chapter 9- Solids, Liquids and Gases

ACTIVITY -1:

Aim/ Objective: To check the solubility of given substances in water.

Materials Require	d:	,	,
			,
Method-			
,			
v)			

Observation-

Sr. No.	Substance	Soluble	Insoluble
	100		
	1.1	A STATE OF	
		1.8.2	
		5.47	
		100	

Conclusion-



Q 2 Demonstrate the molecular arrangement by using thermacol balls in:



Q 3 Compare the properties of the given states of matter.

S.NO.	PROPERTIES		The picture can't be displayed.	
1.	Shape and volume			
2.	Compressibility		1	
3.	Rigid or fluid			
4.	Fill container completely	34	1	

Q 4 Look into the picture and answer the following questions.



- a) The ice present in the first beaker becomes water upon.....
- b) To obtain water from water vapour, we should the water vapours.

<u>Chapter 10 – Force, Work and Energy</u>

SEA:_Affordable and Clean energy: Collect pictures showing the conversion of energy and paste them in a scrapbook. Do some research on internet about the best type of fuel.

- Identify the effects of the force.
- Q 1



- Identify the type of force: Q 2



Q3 Identify the type of different simple machines used in the following complex machines.





REVISION FOR PERIODIC TEST-2

Chapter- 10, 11

Answer the following in one word or in one sentence: QI

- What is matter? 1.
- What do we call the sloping surface which helps to move objects up and down easily? 2.
- What is a force? 3.
- How is electrical energy used? 4.

5. In how many states matter exists?

Q 2 Answer the following in short.

- 1. Write difference between soluble and insoluble substance.
- 2. What is saturated solution?
- **3.** i) What is the force of friction?

ii) On what type of surface, the friction is more?

- 4. Name the four main sources of energy.
- 5. Write any two uses of light energy.

Q 3 Answer the following in detail.

- **1.** Explain the force of Gravity.
- 2. Explain how matter can change from one state to another.
- **3.** Explain the following forms of energy.
- 4. Give reason:
- a) Sugar and snowflakes form crystal-like structures.
- **b**) Gases spread more easily than liquids.
- c) Sponge is a solid, but why it is compressible?

MOCK TEST PAPER FOR PERIODIC TEST-2

<u>Chapter - 10, 11</u>

Q I Choose the correct options:

1. Equal amounts of water were taken in three containers.



In which of the containers will water evaporate the fastest?

- a) A
- **b**) B

- **c**) C
- d) Water evaporation rate is equal in all
- **2.** Read the statement carefully and choose the correct option.

Statement 1: We get energy from food we eat.

Statement 2: We need energy to do work.

- a) Statement A is correct, B is wrong
- **b**) Statement B is correct, A is wrong
- c) Both the statements are correct
- d) Both the statements are wrong
- 3. A student took water and dissolved some salt in it. Later she placed salty water under sunlight for three days. She found only crystals of salt but no water. The process demonstrated in the experiment is
- a) Filtration
- **b**) Boiling
- c) Condensation
- d) Evaporation
- 4. A football is kicked by a boy. It rolls on the ground to some distance and stops. The force which stops the ball is.....
- a) Muscular force
- **b**) Gravitational force
- c) Mechanical force
- d) Frictional force
- 5. A student took 20ml of water in a beaker and dissolved two teaspoons full of sugar. When he checked the volume, he was surprised seeing that the volume remained same at 20ml. can you guess the reason?
- a) Sugar did not actually dissolve in the water.
- **b)** Sugar evaporated
- c) Sugar occupied the empty spaces in between the molecules of water.
- d) Sugar has zero volume.

- 6. Ramu dissolved some salt in water. He obtained salty water. What is the solute in this experiment?
- a) Salt
- **b**) Water
- c) Salty water
- d) All of these
- 7. Asma lit a perfume stick in the corner of a room. When she stood at the other corner, she smelled the perfume after sometime. What can we conclude from this?
- a) Rooms produce perfume when a perfume stick is lit in a corner
- **b**) All the air present in a room gives perfume.
- c) Perfume don't spread from one place to another.
- d) All gases, including perfumes, have the property of spreading from one place to another.
- 8. A glass is inverted over a basin of water and slowly inserted into the water. However the water doesnot enter the glass. This experiment proves that.....
- a) Air occupies space
- **b**) Water cannot be compressed
- c) Water is light weight
- d) Water cannot flow into the glass
- Q II Do as directed:
 - **1.** Fill in the blanks:
 - a) The pulley is a machine.
 - **b**) The substance that dissolves is known as the ...
 - 2. State True or False:
 - a) In gases, molecules are very loosely packed.
 - **b**) The heat produced by the inner parts of the Earth is called hydro energy.

- **Q1** Answer the following in short:
- 1. Rishabh's mother seldom uses LPG and electrical equipment, and mostly uses solar energy for Cooking and heating purposes. Rishabh has Convinced his friends and neighbours also to do so.
- a) What is solar energy?
- b) What value does Rishabh's mother show by using Solar energy?

Q2 Answer the following in detail:

- 1. Give reason:
- a) Sponge is solid but compressible.
- b) We slip easily on ice than on grass.
- c) Buses, cars, and scooters do not skid on road.
- 2. Look at the diagram and answer the following:



Interconversion of the three states of matter

- a) Label 1 & 2
- **b**) Label 3 & 4
- c) Define condensation.

<u>Chapter 11 – The Solar System</u>

Q1 Who am I?

- 1. Which planet rotates the fastest and is the largest in the solar system.-____
- 2. Name one country in the Northern Hemisphere_

Q III

- 3. Name one country in the Southern Hemisphere-_
- 4. At what angle does the Earth's axis run from North Pole to South Pole-_____
- 5. Which satellite reflects sunlight from its surface? ______.

Q 2 Draw/Mark the following on the Earth: i) Equator ii) Axis iii) Northern Hemisphere iv) Southern Hemisphere v) North Pole vi) South Pole V

- 1. The Earth completes one revolution in
- 2. The movement of Earth own its own axis is
- 3. The Earth completes one rotation in
- 4. We have longer days and shorter nights during the
- 5. The Earth rotates from
- 6. Changes in seasons are caused by
- 7. Day and night are caused due to

ACTIVITY-1:- Working model to explain rotation and revolution. ACTIVITY-2 :- Watch movie on Mangalyaan and discuss some questions. ACTIVITY-3 :- Role play on solar system with song.

<u>Chapter-12 Keeping our Earth clean</u>

SEA<u>: Sort out the wastes by categorising them into kitchen items, plastic items, paper</u> items and glass items.

ACTIVITY 1: Keeping Earth clean and green- Planting trees

- Q1 Write any five ways in which you have cared for your environment.
 - $\begin{array}{c}
 1. \\
 2. \\
 3. \\
 4. \\
 5. \\
 \end{array}$
- Q 2 Explain how this factory is causing –

- GANDHINAGAR
- **b**) Water Pollution

Air pollution

a)

c) Land Pollution

Q 3 Recognise the types of pollution shown and write any two causes of it.



• Write a catchy slogan on <u>"STOP POLLUTION"</u>



Chapter 13 – Air, Water and Weather

SDG:_Clean water and sanitation: making of filter and filtering water

Q 1

Find out from where do you get water at your house.

- i) Narmada Canal
- ii) Sabarmati River (AMC)
- iii) Borewell

Also, select the type of water filter you should use.

Q 2 If there are no waterworks in a town, is it safe to drink the water available in that town? Why, or why not?

Q 3 Fill this chart for different seasons: -

Name of season	Changes seen	Food eaten	Clothes worn
Summer	61771114	KIN C A	
Winter	D D B B B		
Autumn			
Spring			
Monsoon			

Q 4 Match the following:

Condition	Weather

1.	Strong wind with rain	a	Cloudy
2.	Clear sky with bright sun	b	Stormy
3.	Using umbrellas with raincoats	c	Sunny
4.	Sky full of clouds	d	Rainy

Q 5 Name the following:

- **1.** A gas present in air which is necessary for burning.
- **2.** Moving air.
- **3.** The main source of water.
- 4. The thick layer of air surrounding the Earth.
- 5. Collection of rain water for future use.

Q 6 Give reasons:

- 1. Pond water should be boiled and filtered before drinking.
- 2. Afternoons are the hottest time of the day.

ACTIVITY 1- Water cycle: Rain in the class ACTIVITY 2- Making of Hot Air Balloon

MAP WORK

Mark all the neighbouring countries in a Political Map of India.



COMPETENCY BASED QUESTIONS (WORKSHEET)

1. Jasmine conducted an experiment. She took two bowls of sand and water and placed them in sunlight. After an hour she noted the temperatures. Then she took both in her house and placed them where there was no light. She noted the temperature again after an hour and made the following observations:

CONDITION	SAND	WATER
-----------	------	-------

Before placing them in sunlight	30^0 C	30^0 C
After placing them in sunlight for an hour	36^0 C	33^0 C
After placing inside the house for an hour	31^0 C	31^0 C

- a) After being placed in sunlight for an hour, the air present above the sand bowl is than the air above the water bowl.
- i) Warmer than
- ii) Cooler than
- iii) Equal in temperature
- iv) All of the above
- b) What is the increase in the temperature of the sand after being placed for an hour in the sunlight?
- i) 30^0 C
- **ii**) 36^0 C
- iii) 6^0 c
- iv) 3^0 C
- 2. Read the passage and answer the following questions:
- a) Everything that we see and feel around us such as trees, plants, animals, the aroma of flowers, the sweetness of fruit, and any other products that are manufactured by the earth is collectively called Nature. It's a non-returnable blessing to mankind. Nature can also be mentioned as the phenomenon which takes place around us daily like the flowing of water, the sense of cold air, and the birds chirruping we hear. Healthy and wealthy nature is very important for the well-being of humans. However, it can also show you its worst negative side. If you want the best from nature, just give it the best you can.
- i) What do plants give us?
- ii) How can we protect our environment?
- iii) How afforestation effects our environment?
- b) Amit went to a science museum with his elder brother who is an astronaut. From the museum, he say the sky using a telescope and was able to see a bight bright object. His brother told him that this bright object in the sky is a planet that is very unique as it has rings and the greatest number of moons. Moving further he also saw group of stars forming a shape of the bear. Returning home he was very amused and full of queries in his mind. Can you answer some of his queries?

- i) What was the name of the bright object that his brother told was a planet ?
- ii) What do we call such a group of stars that form some pattern such as a bear in Amit's case?
- iii) How much time did light from the sun takes to reach Earth?
- c) There are many forms of energy. We get heat energy by burning LPG or wood. We mainly use heat energy to cook our food. Moving air has also got energy called wind energy. This energy is used by wind mill to produce electricity. Solar energy is also very useful. It is used for cooking food with solar cooker. It is also used to heat water by solar water heater. The energy stored in our muscles are called muscular energy with the help of which we can do different works.
- i) We get heat energy by
 - Burning air
 - Burning wood
 - By heating water
 - By wind
- ii) Moving air is used by to produce electricity.
 - Dams
 - Windmills
 - Auto rickshaw
 - All of these
- 3. Sheila made a cup of tea for herself. But her phone rang and she started talking on phone. In the mean while she covered her mug of tea with a lid. After 10 minutes, she removed the lid to drink tea. She observed small water droplets on the inner side of the lid. Now which process is shown in the above paragraph?
- a) Evaporation
- b) Condensation
- c) Freezing
- d) Melting

QUESTION BANK

<u>CHAPTERS- 9,11,12,13,14</u>

CHAPTER – 9 Solid, Liquids and Gases

Q-I Answer the following questions in one word or one sentence:

- **1.** What is a Matter?
- 2. What is the reverse of melting?
- **3.** Does air occupy space?
- 4. Name the state of matter that flows more easily than liquids?

Q II Answer the following questions in short :

- 1. Write two points of difference between condensation and evaporation.
- 2. Why do solids have a fixed shape?
- **3.** Aditi's housemaid does not have a refrigerator. So, she gives ice and cold water to her daily in summers.
 - a) How is water changed to ice?
 - b) What can we learn from Aditi?

QIII Answer the following in detail :

- 1. When sugar is dissolved in water, the volume of water remains the same. Why?
- 2. What is a solution? Give two examples.
- 3. Why does the smell of perfume spreads quickly?

CHAPTER – 10 Force, Work and Energy

- Q-I Answer the following questions in one word or one sentence :
 - 1. Name the force responsible for the falling of ripe fruits.
 - 2. Which force help us to write on a paper?
 - **3.** What is wind energy?
 - 4. Why do we use simple machines?

Q-II Answer the following questions in short :

- **1.** How can we say that friction slows down the movement?
- 2. When a wall is pushed, it does not move from its place. Is any work done in this situation? Why?
- **3.** Rishabh's mother seldom uses LPG and electrical equipment, and mostly uses solar energy for Cooking and heating purposes. Rishabh has Convinced his friends and neighbours also

to do so.

- i) What is solar energy?
- ii) What value does Rishabh's mother show by using Solar energy?

QIII Answer the following in detail:

- 1. Water is water energy? How is t related to hydroelectricity?
- **2.** Discuss the effects of force.

CHAPTER - 10 FORCE, WORK AND ENERGY

Q-I Answer the following questions in one word or one sentence:

- 1. What is a push or a pull called?
- 2. Give two examples of Fuels.
- 3. Name the force that pull every object down on the Earth.
- 4. Define energy.

Q-II Answer the following questions in short:

- 1. What do you mean by Friction? Give two examples from your daily life.
- 2. Explain Wedge with two examples.
- **3.** Define an inclined plane.

QIII Answer the following in detail:

- **1.** Explain the following sources of energy
- i) Sun ii) Moving Air
- **2.** Describe the following forms of energy
- i) Heat ii) Electrical energy iii) Light energy
- 3. Elaborate the different simple machines with examples
- i) Pulley ii) Screw iii) Wheel and Axle

<u>CHAPTER – 11 THE SOLAR SYSTEM</u>

iii) Moving Water

Q-I Answer the following questions in one word or one sentence:

1. What can be used to focus the Sun's rays?

- 2. Define a planet.
- 3. Write the number of moons of the following planets: -
- i) Saturn ii) Uranus iii) Jupiter iv) Neptune
- 4. What causes day and night?
- 5. Name the imaginary line that divides the Earth into two equal halves.
- 6. What is the magma that flows out from the Earth called?
- 7. How much time does the Earth take to complete its one revolution?

Q-II Answer the following questions in short :

- 1. Who am I?
- i) The only planet that is having life on it.
- ii) The planet around which we see many rings.
- iii) The largest planet.
- 2. Explain the outer planets
- **3.** Explain rotation of the Earth.

QIII Answer the following in detail :

- 1. Explain the internal structure of the Earth.
- 2. Explain the revolution of the Earth.
- **3.** Describe a volcano with the help of a diagram.

CHAPTER – 12 Keeping Our Earth Clean

Q-I Answer the following questions in one word or one sentence:

- **1.** What is environment?
- 2. What all does our environment give us?
- **3.** Define acid rain.
- 4. Name any two diseases that are caused by drinking contaminated water.
- 5. How animal dung can be used?

Q-II Answer the following questions in short:

- **1.** What is pollution
- 2. i) What do you mean by soil erosion.

- ii) What are the causes of soil erosion?
- 3. Differentiate between biodegradable and non-biodegradable wastes.

QIII Answer the following in detail:

- 1. Write the ways by which we have harmed our environment.
- 2. What are the effects of the following: -
- i) Air Pollution
- ii) Land Pollution
- iii) Water Pollution
- 3. Write the ways by which we can save our environment.

CHAPTER - 13 AIR, WATER AND WEATHER

Q-I Answer the following questions in one word or one sentence:

- **1.** What is weather?
- 2. What is added to kill the germs in water?
- 3. What do the condensed water-vapour form?
- 4. Define the process of evaporation.

Q-II Answer the following questions in short :

- 1. What makes the wind blow?
- 2. How does the Sun affect weather?
- Define the process of:- i) evaporation
 ii) condensation

QIII Answer the following in detail:

- 1. Differentiate between Sea Breeze and Land Breeze.
- 2. Explain the process of Water Cycle with the help of a diagram.
- **3.** Describe the following forms of water
- i) Hail ii) Frost iii) Fog

MAP WORK

<u>Mark the following in the Political Map of India: -</u>

- 1. Neighbouring Countries of India
- 2. Sea and Oceans

MOCK PAPER OF ANNUAL EXAMINATION

Q1 Choose the correct option:

- 1. Hally took two balloons. She blew air with mouth in one balloon and she filled another balloon with the vapours of boiling water. She released the two balloons and observed that the balloons with the hot vapours rose higher than the other balloon. What did she learn from this experiment?
- a) Hot air is heavier than the cold air.
- **b**) Water vapour give energy to the balloon.
- c) Air likes hot balloon.
- d) Hot air is lighter and therefore rises higher.
- 2. Forests are called as the "lungs of the nature" why?
- a) Bring down the carbon dioxide level in the atmosphere.
- b) Bring down the oxygen level in the atmosphere.
- c) Maintain the balance of oxygen and carbon dioxide in the atmosphere.
- d) Increase the level of oxygen in the atmosphere.
- **3.** Below is a poem written by Meish Goldish. Read the poem and answer the following question.

Moon Are you lonely, moon? Your giant white balloon! You have no water, wind or Air. No wonder nothing lives up there. You cannot grow trees or flowers or grass. Your soil is only rocks and glass. Even your light is not your own. Instead it's from the sun that is shone. Your gravity is weak, I hear. You really have no atmosphere. But don't be sad moon, please don't cry. For I still love you in the sky. 20x1=20

In the poem there is a line "Even your light is not your own" then where does the moon gets its light from?

- a) Electricity
- **b**) Electric generator
- c) Sun
- d) Earth
- 4. A student took two dishes P and Q and poured equal amounts of water in them. He placed dish P in sunlight and dish Q in a closed room. What is the rate of evaporation in dish P and dish Q.
- a) Faster in dish P
- b) Slower in dish P
- c) Faster in dish Q
- d) Same in both the dishes
- 5. Solve the riddle:

No matter how hard you look, you'll never find me.

Unless you have a telescope to help you see.

I was once called a planet, but not anymore.

Now I am just a "dwarf Planet", but too important to ignore.

- a) Moon
- **b**) Pluto
- c) Ursa major
- d) Ursa minor
- 6. Solve the riddle: I am an inner planet and the hottest planet of the solar system. I am totally covered with clouds and so people also called me "Veiled planet". I am also known by the name morning star or evening star. Who am I?
- a) Mercury
- **b**) Venus
- c) Earth
- d) Mars

6. See the picture and identify this simple machine.



- **9.** The process by which wet clothes dry up is called?
- a) Melting
- **b**) Evaporation
- c) Freezing

- d) Condensation
- 10. What is the storm on Jupiter called?
- a) The red great spot
- **b**) The great dark spot
- c) The small red spot
- d) The giant black spot
- 11. A student took an unknown substance into a beaker. The substance took the shape of the beaker. Later he transferred the substance into a measuring cylinder. The substance took the shape of the measuring cylinder but its volume remained the same. What is the state of this substance?
- a) Solid
- **b**) Gas
- c) Liquid
- d) All
- **12.** Your favourite toy is frozen in a block of ice. What would be the process you would use to get it out?
- a) Condensation
- b) Evaporation
- c) Freezing
- d) Melting
- 13. When there is a new moon how much can we see from Earth?
- a) All of it
- **b**) Half of it
- c) A quarter of it
- d) None of it
- 14. Anita is spending his vacation on a hill station. Each day, early in the morning, she sees droplets of water on the windowpane outside his room. She wonders why water droplets are seen on the windowpane at the hill station but not at his home in Mumbai. Can you solve her understand this phenomenon?

- a) Everyday there gets the rain in early morning.
- **b**) The water vapour present in the air evaporates.
- c) The water vapour present in the air condenses.
- d) None of the above.
- **15.** Rehan took a glass of cold water from the refrigerator and placed it on a table. After a few minutes he observed water drops on the outer surface of the glass. Why did water drops form?
- a) Glass produced water droplets.
- **b**) The water in the glass seeped-out.
- c) Water vapour present in the air gets condensed.
- d) Water came out from the gaps present in the glass.
- **16.** By studying the photographs of India in newspaper and TV, we can predict dangers like cyclones and heavy rainfall. These photographs are taken by:



- 17. Hally took two balloons. She blew air with mouth in one balloon and she filled another balloon with the vapours of boiling water. She released the two balloons and observed that the balloons with the hot vapours rose higher than the other balloon. What did she learn from this experiment?
- **a**) Hot air is heavier than the cold air.
- **b**) Water vapour give energy to the balloon.
- c) Air likes hot balloon.

a)

b)

c)

d)

d) Hot air is lighter and therefore rises higher.

- **18.** Can you tell why the moon is not a planet?
- a) Because the moon has no atmosphere.
- **b**) The moon doesn't have its own light.
- c) The moon is not moving around a star.
- d) All of the above
- 19. An is someone trained to operate or work abroad spacecraft.
- a) Astronomer
- b) Scientist
- c) Astronaut
- d) pilot
- 20. What is the name of the process of water droplets falling from the sky?
- a) Evaporation
- **b**) Condensation
- c) Precipitation
- **d**) Filtration

Q II 1. Fill in the blanks:

- a) is necessary for the burning of fire.
- b) The condition of air around us is known as

2. Match the followings:

1.	Liquid to solid	i)	Melting
2.	Vapour to liquid	ii)	Freezing
3.	Solid to liquid	iii)	Evaporation
4.	Liquid to vapour	iv)	Condensation

3. State true or false:

a) Plants use light energy to make food.

2x1=2

4x1/2=2

b) Sun is the nearest star to us.

4. Give one word:

- a) What keeps the Earth warm?
- **b**) What do we call the sloping surface which helps to move objects up and down easily?

5. Who am I?

- a) I make your work easy.
- **b**) I am the red planet.

QIII Do as directed:

3x2=6

- 1. Answer the following questions in short:
- a) Write difference between biodegradable and non-biodegradable wastes.
- b) Look at the picture shown below and answer the following: -



- i) Name the type of breeze.
- ii) Write any point related to it.
- c) Write any two effects of Gravity.
- 2. Answer the following questions in detail:
- **a**) Complete the following diagram:

2x3=6

2x1=2

Heat	
Light	
Electrical	

- **b**) Write any 3 ways to reduce water pollution.
- **3.** Draw a diagram of an Earth and mark the following:
- a) Axis, South pole, Equator, Northern Hemisphere
- **b**) Identify and name the following marked neighbouring countries of India.



2x4=8



