HOLIDAYS' HOMEWORK

CLASS – IX

➢ **Students, we have planned for you some activities to make the optimum use of your energy and give vent to your creativity so that you continue learning during the holidays as well.**

➢ **Parents are requested to converse in English with their wards and encourage them to do the work independently.**

GENERAL INSTRUCTIONS

- **Academic Holidays' Homework of all the subjects is to be done by each and every student.**
- **Revise the portion of the subjects for the upcoming Periodic Test-I.**
- **Open Day Projects / Models / Scrap files etc. are to be prepared as per your Roll No. as mentioned below:**

Roll No wise SDG Projects

SUBJECTS	ROLL NO.
ENGLISH	1-10
HINDI	11-20
MATHEMATICS	21-30
SCIENCE	32-40
SOCIAL SCIENCE	41-ONWARDS

ACADEMIC HOLIDAYS' HOMEWORK

ENGLISH

1. One day when you were going to school you saw an injured puppy lying on the road. Write a diary entry in 120-150 words in your grammar notebook about your experience of that day.

2. Develop a story in your grammar notebook with the given outline – (120 – 150 words) It was raining heavily. The street lights had gone off and I was returning.

3. Read the comprehension passage given on page no. 118 in the assignment. Write its questions and answers in the grammar notebook. Don't copy down the passage.

4. Write a descriptive paragraph on the topic 'My Favourite Place' in about 120-150 words.

5. Complete page no. 95 and 96 in the assignment.

6. Learn the given portion for Periodic Test 1.

HINDI

सामान्य निर्देश-

❖ संपूर्ण कार्य करना आवश्यक है।

❖ संपूर्ण कार्य दिए गए निर्देशानुसार करें।

❖ सुलेख सुंदर लिखाई में करें।

अकादमी कार्य (शैक्षणिक कार्य)

➤ असाइनमेंट में से अप्रैल-मई के अपठित गद्यांश व्याकरण संबंधित प्रश्न- उत्तर, लेखन भाग हिंदी उत्तर पुस्तिका R2 में करें।

➤ असाइनमेंट में से जुलाई व अगस्त मास के अपठित गद्यांश हिंदी उत्तर पुस्तिका R2 में करें।

➤ असाइनमेंट में से जुलाई व अगस्त मास के अनुच्छेद हिंदी उत्तर पुस्तिका R2 में करें।

➤ असाइनमेंट में से जुलाई व अगस्त मास के पत्र लेखन हिंदी उत्तर पुस्तिका R2 में करें।

➤ प्रतिदिन एक कहानी CBSE READING APP में से पढ़े।

➤ समाचार पत्र से मुख्य समाचार की सूची बनाइए (10 दिनों की)।

➤ **नोट-** आवधिक परीक्षा के लिए कक्षा में करवाए गए पाठ्यक्रम का अभ्यास एवं दोहरान कार्य करें।
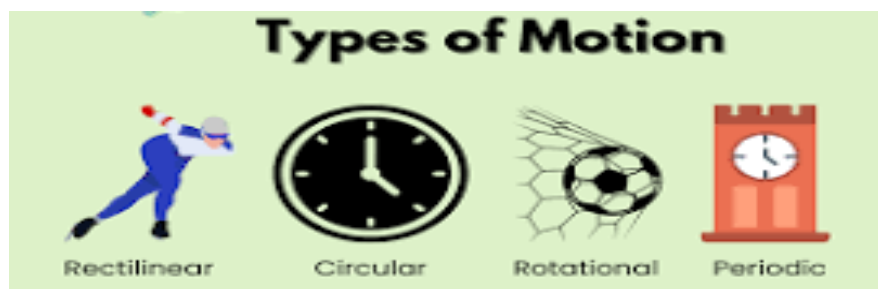
MATHEMATICS

1. Revise chapters -1 to 3 for Periodic Test I.
2. Do assignment of chapter 2 & 3 in Register 1.
3. Do the following activities in Maths Activity file.(Activities will be sent in class group)
   i. To verify the algebraic identity: $a^2 - b^2 = (a + b)(a - b)$.
   ii. To verify the algebraic identity: $a^3 + b^3 = (a + b)(a^2 - ab + b^2)$.
   iii. To verify experimentally that if two lines intersect, then

a) The vertically opposite angles are equal
b) The sum of two adjacent angles is 180º
c) The sum of all the four angles is 360º.
4. To verify experimentally the different criteria for congruency of triangles using triangle cut-outs.
5. From the newspaper cut any 5 Sudoku, solve these and paste in your R1.

SCIENCE

PHYSICS:

Types of Motion

Rectilinear   Circular   Rotational   Periodic

- Complete the assignment of Chapter-7: Motion in the Physics register.
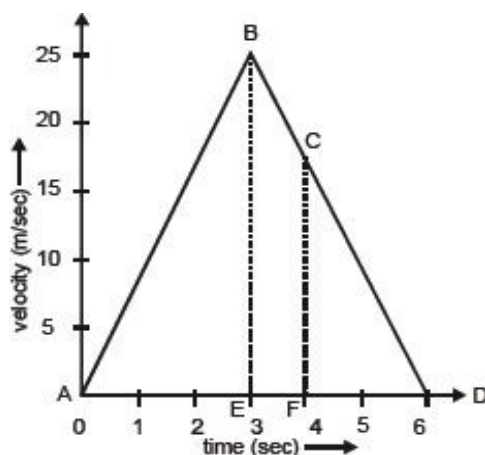- Do the following questions in Physics register.

Q1.(a)Write the SI units of the following quantities:

Displacement, distance, speed, velocity, acceleration.

(b)Also state if the physical quantities given in part a are scalar or vector quantities.

Q2. A car moves with a speed of 30 kmh^{-1} for half an hour, 25 kmh^{-1} for one hour and 40kmh^{-1} for two hours. Calculate the average speed of the car.

Q3. Case based: Study the velocity-time graph and calculate.

(a) The acceleration from A to B

(b) The acceleration from B to C   (Take velocity of the object at C as 18m/s)

(c) The distance covered in the region ABE

(d) The average velocity from C to D

(e) The distance covered in the region BCFE

Q4. On the next trip by a vehicle, note the values of odometer and speedometer after every 10 minutes till you reach your destination. Write this observation in a tabular form as follows:

Time	Odometer reading	Distance covered(calculate it from odometer readings)	Speedometer reading

i. Plot the graph between
   a. Distance- time   b. Velocity - time   neatly on a graph and paste it in your register.
ii. From the velocity -time graph calculate the distance covered and the values of acceleration.
iii. Study the graph and tell whether the motion is uniform or non-uniform motion.
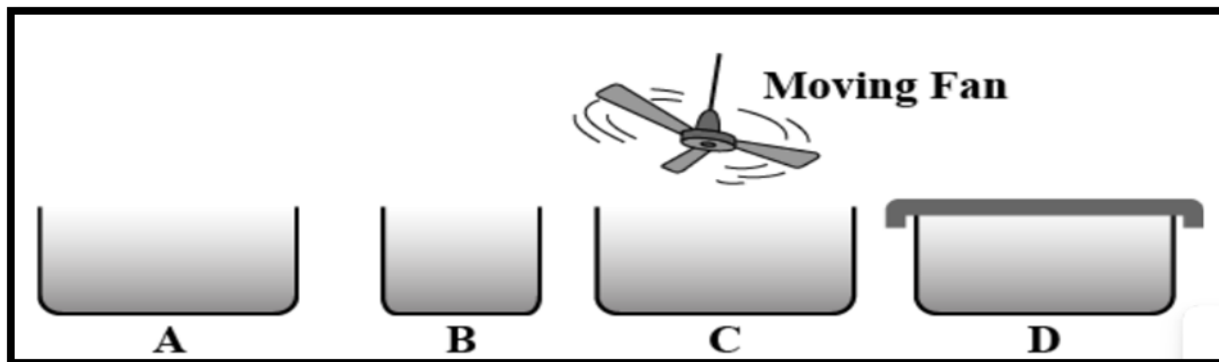
Chemistry:

- Learn all the question answer of ch-1 and complete the assignment work.
- Do the following questions in your Chemistry register

Q1. Sita lived in a village and could, not afford refrigerator in her house. She knew how to keep water cold and preserve all perishable items in her house. She kept wet cloth surrounding the earthen pot to keep water cooler. She also kept vegetables fresh by keeping them in wet gunny bag and timely sprinkled water over it.

(a) Why did Sita keep wet cloth surrounding the earthen pot?

(b) Suggest one more method of keeping the house cool in summer.

(c) What value of Sita is reflected in the above case?

Q2. Look at the following figures and suggest in which of the glass containers, i.e.,A, B, C or D, will the rate of evaporation be the highest? Justify your answer.
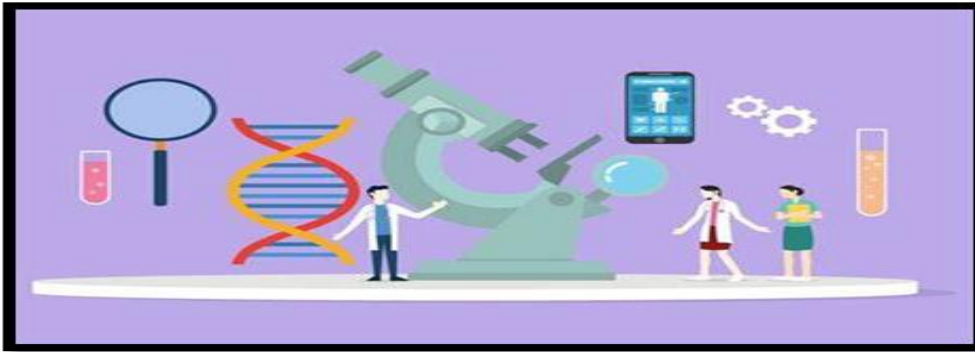
Q3. Dipika visited the Natural Gas Compressing Unit to discover that the gas can be liquefied at specific temperatures and pressures. She shared her experience with her friends but got confused. Help her identify the right set of conditions with explanation.

(a) Low temperature and low pressure

(b) High Temperature and low pressure

(c) Low temperature and high-pressure

(d) High temperature and high-pressure

Q4. Short Answer type questions

(a)Why can we split a piece of chalk into tiny particles on hammering but not iron?

(b) Find the density of sand with a mass of 208 g ejecting a volume of 80 mL of water.

(c) Why is liquid classified as a fluid?

(d) Solid ice float on water. Justify the statement.

(e) By which physical phenomenon does the fragrance of a burning stick spread?

(f) Name the physical phenomenon accountable for parching watery clothes. Why does the spreading of clothes increase the rate of drying?

(g) Convert the following to the Kelvin scale.

(i) 65 ° C   (ii) 300 ° C

(h) Is dry ice same as the normal ice? If no, then differentiate between dry and ordinary ice.

(i)Why are fluid particles held less firmly than solid?

(j) How will you differentiate between a gas and a vapour?

(k) What are the essential requirements of a substance to be categorised as a matter?

BIOLOGY

Revise the Chapter Fundamental unit of life

Do all the MCQ and Assertion Reason question from Ch Fundamental unit of life in the Assignment book Pg no. 258 to 259.

Do the following questions in the Biology notebook

Q.1 Name the organelles which show the analogy written as under
  (a) Transporting channels of the cell——
  (b) Power house of the cell——
  (c) Packaging and dispatching unit of the cell——
  (d) Digestive bag of the cell——
  (e) Storage sacs of the cell——
  (f) Kitchen of the cell——
  (g) Control room of the cell——

Q.2 Short Answer Questions-

  i.   What is the main function of Leucoplasts?
  ii.   Why the Plasma membrane is called as Selective Permeable Membrane?
  iii. Describe what is an isotonic solution and hypotonic solution.
  iv.   Write the differences between a plant and animal cell.
  v.   Distinguish between Prokaryotic and Eukaryotic Cell.

Q.3 A person takes concentrated solution of salt, after sometime, he starts vomiting. What is the phenomenon responsible for such situation? Explain.

Q.4 We eat food composed of all the nutrients like carbohydrates, proteins, fats, vitamins, minerals and water. After digestion, these are absorbed in the form of glucose, amino acids, fatty acids, glycerol etc. What mechanisms are involved in the absorption of digested food and water?

Q.5 Bacteria do not have chloroplast but some bacteria are photoautotrophic in nature and perform photosynthesis. Which part of the bacterial cell performs this?

Q.6 Differentiate between rough and smooth endoplasmic reticulum. How is endoplasmic reticulum important for membrane biogenesis?

Q.7 In brief state what happens when
  (a) Dry apricots are left for sometime in pure water and later transferred to sugar solution?
  (b) A Red Blood Cell is kept in concentrated saline solution?
  (c) The Plasma membrane of a cell breaks down?

(d) Rheo leaves are boiled in water first and then a drop of sugar syrup is put on it?

(e) Golgi apparatus is removed from the cell?

Q.8 Draw a well-labelled diagram of a eukaryotic nucleus. How is it different from nucleoid?

Case Based question:

Q.9 Plasma membrane or Cell membrane is the outermost covering of the cell that separates the contents of the cell from its external environment. The plasma membrane is flexible and is made up of organic molecules called lipids and proteins. The flexibility of the cell membrane also enables the cell to engulf in food and other material from its external environment. Such processes are known as endocytosis. The plasma membrane allows or permits the entry and exit of some materials in and out of the cell. It also prevents movement of some other materials.

(i)The plasma membrane is made up of _____

(a) Proteins

(b) Lipids

(c) Proteins and Lipids (Lipoproteins)

(d) None of above

(ii)Which of the following substance is known as cellular waste?

(a) Oxygen

(b) Nitrogen

(c) Carbon dioxide

(d) None of above

(iii) The movement of a substance from the region of higher concentration to the region where its concentration is lower is called as _____

(a) Osmosis

(b) Diffusion
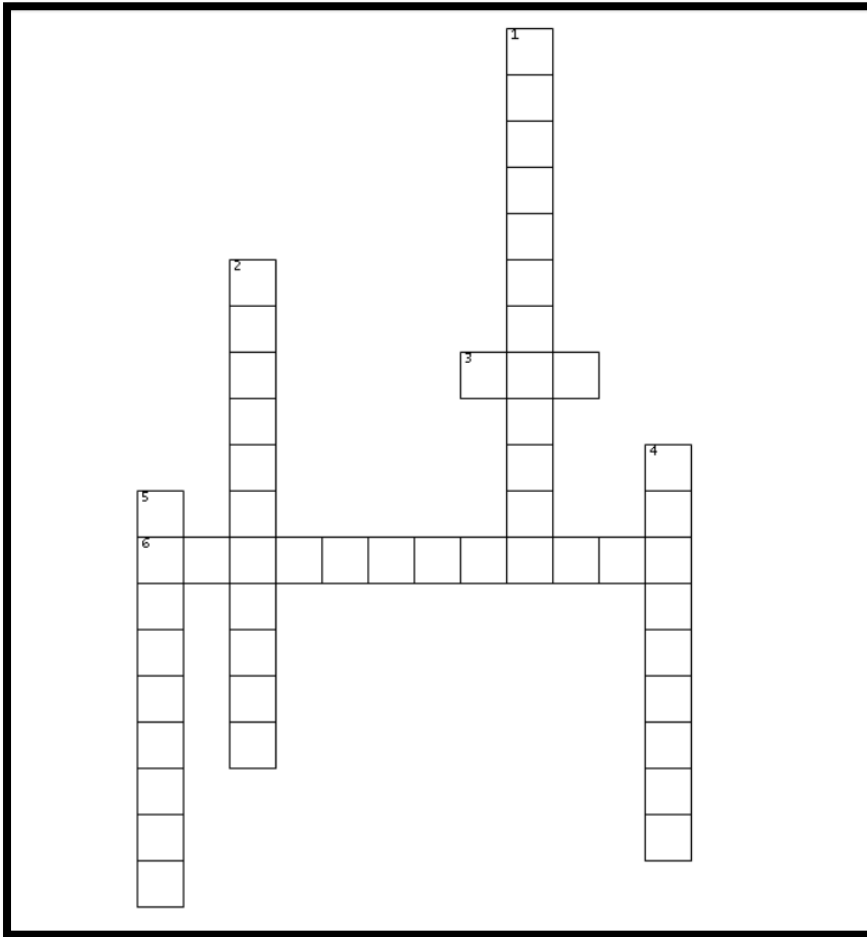
(c) Excretion of CO2 (carbon dioxide)

(d) All above

Q.10 Cross word puzzle

ACROSS
3. _____stands Deoxyribonucleic Acid
6. These are important for photosynthesis in plants

DOWN
1. They are the powerhouses of the cell
2. Paramecium is a _____ organisms
4. It is a kind of waste disposal system of the cell
5. One of the biologist who presented the cell theory

SOCIAL SCIENCE

- Assignment page no. 309-313(MAP WORK)
    358,359,414 (CASE STUDY)
- Every student has to compulsorily undertake one project on **Disaster Management.**
- The marks will be allocated under the following heads:

SL.NO.	COMPONENTS	MARKS ALLOTTED
1.	INTRODUCTION/OVERVIEW	2
2.	VARIETY OF CONTENTS	3
3.	PRESENTATION	3
4.	CONCLUSION	1
5.	BIBLIOGRAPHY	1
6.	VIVA-VOCE	10
	TOTAL	**20**

I.F.M.

Do assignment pages- 444,445,446,447,448 &449

Revise all the work done in the class.

Note:-Assignment work should be done in the assignment only

I.T.

- Revise Chapter – 1, 2, 3 PART A
- Revise Chapter – 1 , 2 and complete all back exercise questions in notebook from PART B
- Complete Assignment Ch-1& 2 from Part B.

A.I.

- Revise Chapter – 1, 2 from PART A
- Revise Chapter – 1, complete all back exercise questions in notebook from PART B
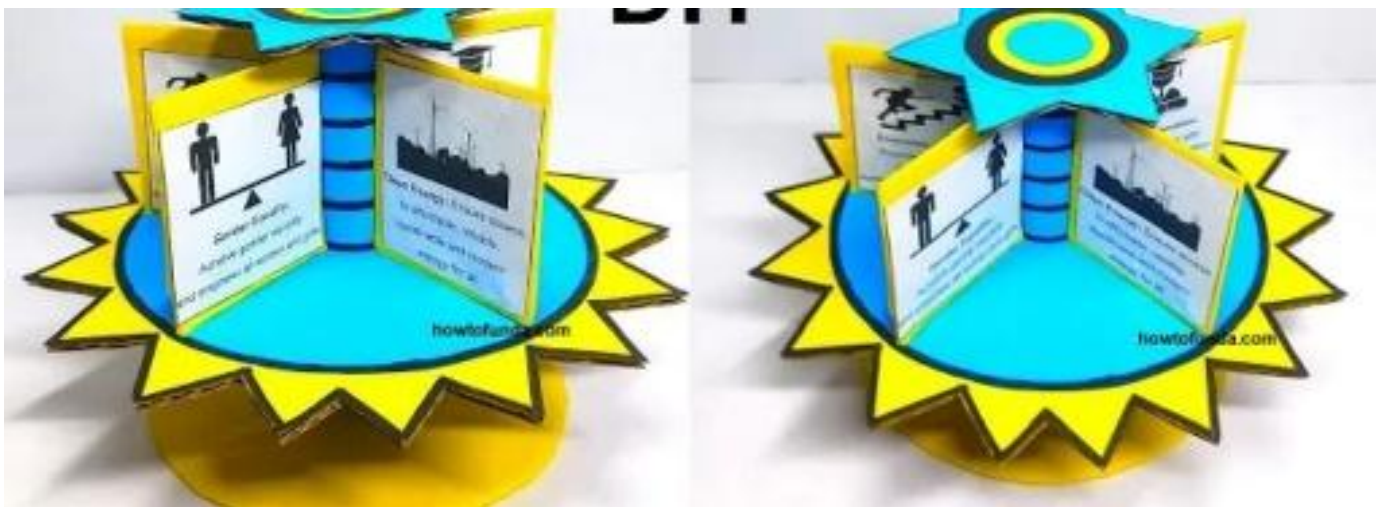- Complete Assignment Ch-1from Part B.

OPEN DAY PROJECT AND ACTIVITIES -BASED ON SDG

ENGLISH

SDG 11 – Sustainable Cities and Communities Model of an energy efficient appliance/water saving device/mobile app for sustainable lifestyle/pedestrian friendly infrastructure.

HINDI

➢ **ब्लू इकोनॉमी के बारे मे लिखकर सूचना कार्ड बनाइए एवं समुद्री जल प्रदूषण से सम्बन्धित मॉडल बनाइये।**
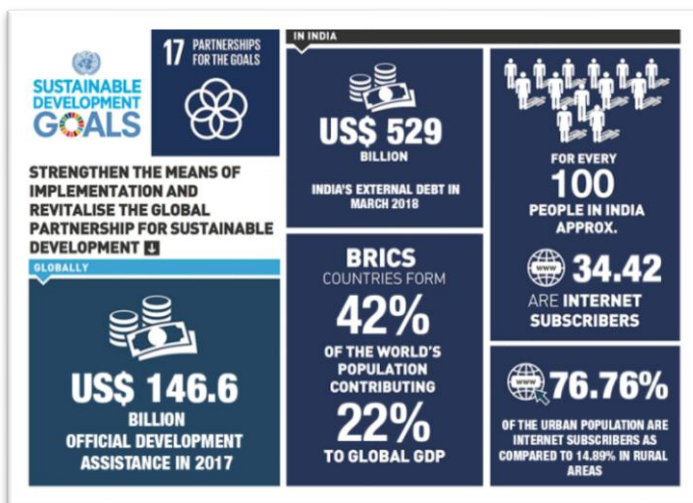

MATHEMATICS

- **Section IX A**: Roller charts, demonstrating the importance of multi-stakeholder partnerships in addressing global challenges. (Statistical Presentation) /Model which shows the trade and manufacturing project that invested In India to achieve the SDG goal 17 (Like manufacturing of plant of Apple, Samsung, and Tesla etc. &Tata & Reliance in U.S.A and U.A.E.

- **Section IX B:** Roller charts showcasing Sustainable Development Goal 17 (SDG 17) could include displays on partnerships for the goals, international cooperation, financing for development, technology transfer, capacity-building, and more. It might feature examples of successful collaborations between governments, businesses, and civil society organizations working towards achieving the SDGs .(Statistical Presentation) **/** Model which shows the trade and manufacturing project that invested In India to achieve the SDG goal 17 (Like manufacturing of plant of Apple, Samsung, Tesla etc. and Tata & Reliance in U.S.A and U.A.E.

SCIENCE

1. Prepare a working model on: Solar power generator by using waste materials and eco-friendly materials.

Material required- Cardboard, solar panel

- **Science newspaper making activity: Prepare a creative newspaper based on ANY ONE of the following:**

  i. SDG Goal 6 "clean water and sanitation for all"
  ii. SDG goal 7: Affordable and clean energy"

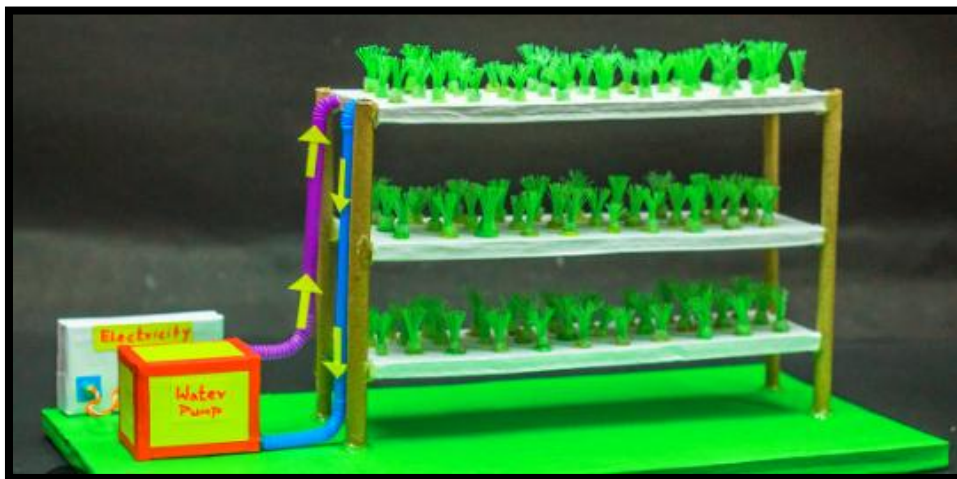 **iii. Give a catchy heading to your newspaper.**

SOCIAL SCIENCE

- **SUSTAINABLE DEVELOPMENT GOAL 12- RESPONSIBLE CONSUMPTION AND PRODUCTION**

  Goal 12 is about ensuring sustainable consumption and production patterns, which is key to sustain the livelihoods of current and future generations. Our planet is running out of resources, but populations are continuing to grow. If the global population reaches 9.8 billion by 2050, the equivalent of almost three planets will be required to provide the natural resources needed to sustain current lifestyles.
  What is Hydroponics?
  The word "Hydroponics" is derived from the word "hydro's" meaning water and "ponos" meaning toil or labour. It is an agricultural technique where plants are grown in a nutrient solution in the complete absence of soil. Here, the soil is substituted by sterile mediums such as Rockwool, vermiculite, sand, gravel, clay pellets, and perlite to give stability to roots. Nutrients are passed through roots differently, based on the type of hydroponic system used, oxygen is pumped through, pH level is regulated and sufficient light is provided to carry out photosynthesis. In the areas where natural light is not available, artificial lighting is provided. It is an innovative method of farming and is being widely used now for food production.

  Make a Hydroponic farming working model.

- Make **a Roller Chart/Wall magazine** with pictures and drawings on **SDG 12**.
  It should cover
    1. Name of the goal
    2. Objectives of the goal
    3. with pictures
    4. Targets of the goal

I.F.M.

- **PROJECT WORK**
  Every student has to compulsorily undertake a project on any one of the following topics:-

1. Money: origin, types, characteristics
2. Financial planning
3. Smart goals
   Give a pictorial account of evolution of money giving one example at each stage.

I.T.

- Create animated story using topic "STOP WAISTING FOOD NOW"

A.I.

- Create animated story using topic "SDG-2"

PERIODIC TEST SYLLABUS

ENGLISH

- **Main text book:** Beehives
  Unit 1 -the fun they had
  Poem - the road not taken
  S. R. L 1. The lost child
- **Grammar:** subject-verb concord
- **Writing skills-** diary entry
  Comprehension passage

HINDI

- दो बैलों की कथा ,कबीरदास , इस जल प्रलय में ,वाख ,लहसा की ओर
- व्याकरण -उपसर्ग , प्रत्यय ,लेखन-अनुच्छेद लेखन, पत्रलेखन , अपठितगद्यांश

MATHEMATICS

- Ch-1: Number System
- Ch2: Polynomials
- Ch-3: Co-ordinate Geometry

SCIENCE

- Physics: Ch-7: Motion
- Chemistry: Ch-1: Matter in our surroundings
- Biology: Ch-5: The fundamental unit of life

SOCIAL SCIENCE

History
- Chapter 1: The French Revolution

Geography
- Chapter 1: India- Size and Location

Political Science
- Chapter1: What is Democracy, Why Democracy?

Economics
- Chapter 1; The Village of Palampur
- Chapter 2: People as a Resource

I.F.M.

SUBJECT SKILLS
UNIT-1 Money- What it is?
UNIT-2 Money exchange systems

EMPLOYABILITY SKILLS
UNIT-1 Communication skills
UNIT-2 Self-management skills

I.T.

Employability Skills
Ch- 1 Communication skills
Ch-2 Self-Management Skills

Subject Specific Skills
Ch-1 Introduction to IT& ITeS Industry

A.I.

Employability Skills

Ch. - 1 Communication skills

Ch-2   Self-Management Skills

Subject Specific Skills

Ch-1   Introduction to AI