DEWAN PUBLIC SCHOOL
HAPUR

HOLIDAY HOMEWORK (2023-24)

CLASS – X

SOCIAL SCIENCE :

HISTORY :

1. Make a project on the topics given below :
Examine the tabulate social, economical and political conditions of PRE and POST INDUSTRIALIZATION.
2. Make a project on the impacts of industrialisation in the colonies with special emphasis on India.

ECONOMICS :

3. Conduct a research on any one of the following social issues listed below prevailing in the society and suggest its impacts and reforms. (250 words)
- **Consumer rights**
- **social issues (child labour, gender equality, division of labour, political participation of women.)**
- **sustainable development.**

GEOGRAPHY :

4. On the outline of physical map of India, mark and lable the following :

S. No.	CHAPTER NAME	MAP CONTENT
1	Resource and development	All major soil types
2	Water resources	- Salal - Bhakra Nangal - Tehri - Rana Pratap Sagar - Sardar Sarovar - Hirakud - Nagarjuna Sagar - Tungabhadra

NOTE :

- **Make a separate file for social science project including Map work .**
- **Prepare a front page having Name of the school, Subject, Topic of content , submitted to and submitted by .**
- **Make sure that the work should be completed creatively and neatly.**
- **All projects will be assessed as internal Assessment .**

SCIENCE :

Biology :

- **Task-1**

'Respiratory diseases impose an immense worldwide health burden".

Find out the five most common respiratory diseases which are the causes of severe illness and death worldwide. Paste pictures and fill the necessary information in a table.

Format is given below:

| S.No	Respiratory disease (Name)	Scope of the disease	Prevention	Treatment	Control and Elimination
1					
2					
3					
4					
5					

- **Task -2**

- Draw and design a catchy caption for World Lung Day . Click a picture of it and paste it at the bottom of your assignment .

PHYSICS :

1. Design an experiment in which you are to identify and categories the mirrors as Plane Mirror , Concave Mirror & Convex Mirror with the help of a ruler .

- Draw a picture of your experimental set up.

- Discuss how you will conduct the experiment.

- Make a list of the equipment you will need.

- Write down the procedure you will follow.

- Perform the experiment and conclude your observations to get the required results .

2. A spherical mirror produces an image of magnification – 1 on a screen placed at a distance of 50 cm from the mirror.
   (a) Write the type of mirror.
   (b) Find the distance of the image from the object?
   (c) What is the focal length of the mirror?

Draw the ray diagram to show the image formation in this case.

3. Identify the mirror which :-

- can give virtual as well as real image of the object.

- will always give virtual image of same size of an object.

- will always give virtual & diminished image of object.

- is used by doctors in examining teeth.

4. Answer the following questions based on the above figure :
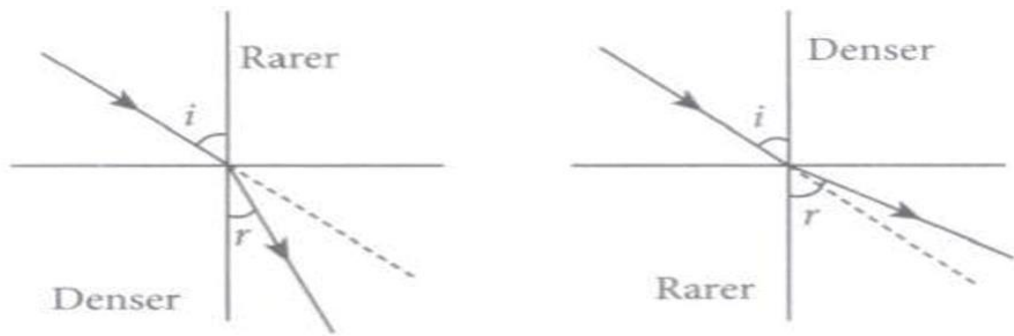
- When light travels from air to glass, how does the ray of light bend ?

- In which medium, speed of light will be greater than the other - Denser OR Rarer ?

- On the basis of the Fig. shown above, state the laws of refraction?

- If on travelling from medium 1 to 2 , light ray incidents at an angle of 30° then what will be the angle of refraction ? (Refractive index of medium 2 with respect to medium 1 is $1/\sqrt{2}$)

5. Numerical problems based on Mirror formula :

- An object is placed at a distance of 20cm from a convex mirror of focal length 25cm. Calculate the
  position of the image. Discuss its nature.

- A 2.0-cm-high object is placed at a distance of 20cm from a concave mirror. A real image is
  formed at 40cm from the mirror. Calculate the focal length of the mirror and the size of the image .

- An object is placed at a distance of 12cm from a concave mirror. The image formed is real and four
  times larger than the object. Calculate the distance of the image from the mirror.

- When a concave mirror is placed facing the sun, the sun's rays converge to a point 10cm from the
  mirror. Now, an erect, 2-cm-long pin is placed 15 cm away on the principal axis of the mirror. If you
  want to get the image of the pin on a card, where would you place the card? What would be the
  nature & height of image ?

CHEMISTRY :

1) Prepare a detailed report on Types of Chemical reactions with at least 5 examples each.

2) Find out at least 10 different chemical reactions happening in your daily life. Write down their balanced chemical equations and categorize them according to the type of reaction using a PowerPoint presentation.

3) Prepare Your Own Indicator using Beetroot or Common Flower :

   • Crush beetroot/common flower in a mortar.

   • Add sufficient water to obtain the extract.

   • Filter the extract

   • Collect the filtrate to test the substances listed below

   • Arrange four test tubes or glass containers and label them as A, B, C, and D. Pour 2 mL each of lemon juice solution, soda-water, vinegar, and baking soda solution in them respectively.

   • Put 2-3 drops of the beetroot/common flower extract in each test tube and note the color change if any.

   • Write your observation in a Table.

4) Using a pH strip categorize the naturally occurring substances as acids, bases & neutral compounds (water, coffee, onion peel, milk, mustard oil, lemon juice, carbonated drink, soap like Dove, Lux, Santoor, etc.)

5) Balance the following equations :

1. $H_3PO_4 + KOH \rightarrow K_3PO_4 + H_2O$
2. $HCl + NaOH \rightarrow NaCl + H_2O$
3. $Na + NaNO_3 \rightarrow Na_2O + N_2$
4. $Na + O_2 \rightarrow Na_2O$
5. $NaOH + H_2CO_3 \rightarrow Na_2CO_3 + H_2O$
6. $C_6H_6 + O_2 \rightarrow CO_2 + H_2O$
7. $Al_2(OH)_3 + H_2CO_3 \rightarrow Al_2CO_3 + H_2O$
8. $NH_4OH + H_3PO_4 \rightarrow (NH_4)_3PO_4 + H_2O$
9. $Na + Cl_2 \rightarrow NaCl$
10. $NH_3 + O_2 \rightarrow N_2 + H_2O$

6.   a)
Explain the term "**Corrosion**" with an example. Write a chemical equation to show the process of corrosion of iron.

(b) What special name is given to the corrosion of iron?

(c) What type of reaction is involved in the corrosion of iron?

(d) Name three objects (or structures) that are gradually damaged by the corrosion of iron and steel.

(7)(a)What happens when an aqueous solution of sodium sulphate reacts with an aqueous solution of barium chloride?

(b) Write the balanced chemical equation for the reaction which takes place.

(c) State the physical conditions of the reactants in which the reaction will not take place.

MATHEMATICS :
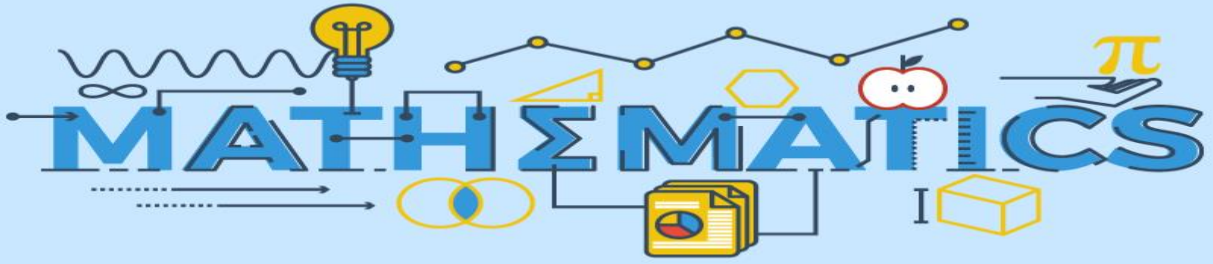
1. **Activity 1:** To make a graphical exploration of the zeroes of a quadratic Polynomial .

2. **Activity 2:** Given a system of simultaneous linear equations in the form.

   $3x + 5y = 15$, $2x + 6y = 10$

   $x – 2y = 4$, $x -2y = 6$

   $2x + 3y = 10$, $4x + 6y = 20$

   Demonstrate graphically that such a pair of equations forms intersecting, parallel and coincident lines.

3. **Activity 3:** To obtain the solution of a quadratic equation ($x^2 + 40x = 60$) by completing the square geometrically.

4. Practice complete syllabus covered in the class.

- **NOTE:-** These activities are as per the guidelines of CBSE and are to be done in a separate Maths Practical Notebook.

हिन्दी :

प्रश्न 1- आप दीवान पब्लिक स्कूल के छात्र छात्रा हैं ।आपके विद्यालय में खेल सामग्री का अभाव है। अपने विद्यालय के प्रधानाचार्य को खेल सामग्री उपलब्ध कराने हेतु एक ईमेल लिखिए।

प्रश्न 2-'हिंदी दिवस के महत्व' पर कविता वाचन करते हुए अपनी 2 मिनट की वीडियो बनाकर अपने विषय के अध्यापक को (अपना नाम, कक्षा एवं विभाग लिखकर) भेजें।

ENGLISH :

1. Students are directed to read English newspaper daily and write one headline in the notebook.

2. Write 50 phrasal verbs with their meanings and usage

3. Write the following character sketches in the notebook:
   i) Lencho
   ii) The Post master
   iii) Nelson Mandela
   iv) Hari Singh
   v) Mrs. Pumphrey

4. Revise the syllabus done in the class for the periodic assessment.

   - **Note : Do all the above work in a separate notebook**

INFORMATION TECHNOLOGY :

Note:- Print out of below assignments to be attached in the Practical File.

1. Write your resume/ Bio Data and apply different styles on it.

2. Create a New Year card using images

3. Create a template for Report Card by applying the following points-
   a. Insert the logo of the school
   b. Write the name of the school in 22 font size
   c. Apply background colour
   d. Insert table for marks

4. Create a table of contents for Subject Name Science of Four chapters that should contain the following.
   a. Chapter Name- (Heading-1)
   b. Topic's Name-(Heading- 2)