

APEX PUBLIC SCHOOL
HOLIDAY HOMEWORK
X (2024-25)

SUBJECT- ENGLISH

1. Make catchy posters on A3 size sheet, on the following topics:

- a) World Environment Day (Roll no. 1-8)
- b) International Yoga Day. (Roll no. 9-16)
- c) Child Abuse. (Roll no. 17-24)
- d) World Population Day. (Roll no. 25-30)
- e) World Tobacco Day. (Roll no. 30 onwards)

2. Read a Book/Novel of your interest. Write a Book Review on it. Following points should be included to make it attractive.

- a. "Name of the book, Date and year of publication Summary of the story you read.
- b. "Write about any two characters.

3. Write a Report/Travelogue of your visit to an attracting place in about 100- 120 words. Paste pictures

4. Prepare a project report on life and history of ROBERT FROST with two examples of short poems.

5. Read the English newspaper daily for 15 days. Paste any one news article along with pictures and paste it in your Scrap Book with Day, Date and Time.

NOTE: The Homework must be compiled in a Spiral Notebook, except Poster.

SUBJECT-HINDI

नोट:- ग्रीष्मकालीन अवकाश गृहकार्य हेतु एक अलग कॉपी बनाएं।

कार्य सुंदर ढंग से पूरा करें।

1. कबीर के दोहे समाज के लिए दर्पण का कार्य करते हैं। आप इस बात से कितना सहमत हैं? अपनी बात को वर्तमान के उदाहरणों के साथ बताइये।

2. प्रेमचंद की चर्चित किन्हीं भी दो कहानियों का अध्ययन करें। साथ ही उनका सारांश अपने शब्दों में लिखें।

3. "हरिहर काका" ग्रामीण परिवेश की बदलती संस्कृति एवं रिश्तों की कहानी है। आप अपने अनुभव के आधार पर बदलते ग्रामीण परिवेश के मूल्यों एवं रिश्तों की चर्चा करें। (गांव का नाम जरूर लक्षित करें)।
4. '1947 से पहले ही भारत आजादी का उत्सव मना चुका था' "डायरी का एक पन्ना" पाठ के आधार पर इस कथन की पुष्टि कीजिए।
5. समाज में चेतना जागृत करने हेतु निम्न से किसी एक विषय पर विज्ञापन तैयार करें:- (ए3 शीट का प्रयोग करें)
 - क. शिक्षा का महत्व
 - ख. लैंगिक समानता
 - ग. पर्यावरण संरक्षण
 - घ. जनसंख्या नियंत्रण
6. ग्रीष्मकालीन अवकाश का आनंद आपने किस तरह से उठाया? अपने अनुभवों को अपने शब्दों में साझा करें। साथ ही सुंदर तस्वीरें भी चिपकाएं।
7. आस पास के वातावरण से प्रेरित होकर किसी भी विषय पर स्वरचित कविता का सृजन करें।
8. मीरा के पद पर सचित्र परियोजना कार्य (मीरा का जीवन परिचय, भाषा शैली, पद आदि) तैयार कीजिए।

SUBJECT- SOCIAL SCIENCE

A. Make a project on any one of the following:

- Sustainable Development
- Consumer Awareness
- Social issues

Guidelines for Project-

- Project to be completed on an A-4 size sheet.
- Project should be handwritten.
- On the first page student Performa to be given.
- Acknowledgement
- Content or Index
- Newspaper cuttings, maps and diagrams are a must.
- The project should be strictly based on India.

- B. Complete your written work.
- C. Revise chapters done in class.
- D. Complete given worksheet in notebook.
- E. Learn question answers of all the chapters done in class and prepare for PA 1

F. Do practice of the following Map work:

- Regions covered under Laterite soil
- Regions covered under Black soil
- Regions covered under Alluvial soil
- Soil found mainly in hilly areas

SUBJECT-SCIENCE

SECTION A , ACTIVITY

PART I- Find out at least 10 different chemical reactions happening in your daily life. Write down their balanced chemical equations and categorise them according to the type of reaction.

PART II- “Art of using mirrors”



& lenses in different fields of life”

Mirrors & Lenses have a wide range of applications in our day to day life..... People often confuse these devices as they look similar but in reality, they are entirely different from each other in terms of functionality & performance.

- For decorating purpose
- In the field of fashion design
- Scientific apparatus
- Photography
- Medical Use
- Architecture
- For security Purpose
- During personal grooming, and many more....



Explore any two such fields & show your investigation about mirrors & lenses which may include introduction, ancient history of them, your creativity & scientific relevance.

SECTION B

(A) Draw neat and well labelled diagram of the following: -

- Open and closed stomata
- Nutrition in Amoeba
- Human alimentary Canal
- Human respiratory system
- Schematic sectional view of the human heart

- Excretory system in human beings
- Structure of a nephron

NOTE: Attempt on white A-4 size sheets and prepare separate folders for section A and B.

(B) Prepare working models on:

- | | |
|---------------------------|-------------------|
| 1) Human Digestive System | Roll no. 1 to 5 |
| 2) Human Heart | Roll no. 6 to 10 |
| 3) Respiratory System | Roll no. 11 to 15 |
| 4) Hemodialysis | Roll no. 16 to 20 |
| 5) Acid Rain | Roll no. 21 to 25 |
| 6) Neurons | Roll no. 26 to 30 |
| 7) Rain water Harvesting | Roll no. 31 to 35 |
| 8) Working of Eye | Roll no. 36 to 40 |

SECTION C

WORKSHEET

Do the following questions in your classwork notebook.

(Chemical Reactions and Equations)

1. A solution of potassium chloride when mixed with silver nitrate solution, an insoluble white substance is formed. Write the chemical reaction involved and also mention the type of the chemical reaction?
2. Why do fireflies glow at night?
3. What does slaking of lime stand for? Why is there a hissing sound during this process? Write the chemical equation for the reaction involved.
4. Why is silver chloride stored in dark coloured bottles?
5. Write the chemical formula of compounds formed on passing excess of CO_2 through lime water.
6. Write a balanced chemical equation when ferric oxide reacts with dilute Sulphuric acid to give ferric sulphate and water.
7. Grapes hanging on the plant do not ferment but after being plucked from the plant can be fermented. Under what conditions do these grapes ferment? Is it a chemical or a physical change?
8. Why is photosynthesis considered an endothermic reaction?
9. You are provided with four solutions dil.HCl , dil.HNO_3 and ZnCl_2 and two containers made up of copper and aluminium. In which of these containers the given solutions are kept?

10. During the chemical reaction between dil HCl and zinc metal, a gas is evolved. How the presence of the gas be determined?

(Life Processes)

11. If a plant is releasing carbon dioxide and taking in oxygen during the day, does it mean that there is no photosynthesis occurring? Justify your answer

12. Name the component of food not digested in the stomach.

13. Stomata of desert plants remain closed during the day time. How do they take up carbon dioxide and perform photosynthesis?

14. Why is blood clotting useful?

15. "Breathing cycle is rhythmic whereas the exchange of gases is a continuous process" Justify this statement.

16. Leaves of a healthy potted plant were coated with vaseline. Will this plant remain healthy for long? Give reasons for your answer.

17. Arteries have thick walls whereas veins have valves. Explain.

18. Why are valves needed in the heart?

19. What is emulsification of fat?

20. How is the required pH maintained in the stomach?

(LIGHT: REFLECTION AND REFRACTION)

21. In an experiment with a rectangular glass slab, a student observed that a ray of light incident at an angle of 55° with the normal on one face of the slab, after refraction strikes the opposite face of the slab before emerging out into air making an angle of 40° with the normal. Draw a labelled diagram to show the path of this ray. What value would you assign to the angle of refraction and angle of emergence?

22. An object 5 cm in length is placed at a distance of 30 cm in front of a convex mirror of radius of curvature 40 cm. Find the position of the image, its nature and size.

23. Explain with the help of a diagram, why a pencil partially immersed in water appears bent.

24. It is desired to obtain an erect image of an object, using concave mirror of focal length of 12 cm.

i. What should be the range of distance of an object placed in front of the mirror?

ii. Will the image be smaller or larger than the object? Draw a ray diagram to show the formation of the image in this case.

iii. Where will the image of this object be, if it is placed 24 cm in front of the mirror? Draw a ray diagram for this situation also to justify your answer. Show the positions of pole, principal focus and the centre of curvature in the above ray diagrams.

25. With respect to air, the refractive index of ice is 1.31 and that of rock salt is 1.54. Calculate the refractive index of rock salt with respect to ice.

26. A thin lens has a focal length of -50cm. What is the power of the lens and its nature?

27. Why is convex lens called converging lens and concave lens a diverging lens?

28. What happens to the size of the image formed by a convex mirror when an object is gradually moved towards the mirror?

29. Find the position, nature and size of the image formed by a convex lens of focal length 12 cm of an object 5 cm high placed at a distance 20 cm from it.

30. Show that the refractive index of a medium 1 with respect to medium 2 is reciprocal to the refractive index of medium 2 with respect to 1 i.e. $n_{12} = 1/n_{21}$.

SUBJECT-FRENCH

1. Complete the worksheets given in class and paste in your notebooks .
2. Make a chart on famous celebrities of France .

SUBJECT-MATHS

Activity

1. Finding the HCF of two numbers practically on the basis of Euclid's Division Lemma.
2. Drawing the graph of a quadratic polynomial and finding out its shape as well as the coefficient of x^2 .
3. Obtaining the solution of the corresponding quadratic equation ($x^2 + 4x = 60$) by completing the square geometrically.
4. Identifying the Arithmetic Progressions using some patterns/numbers
5. Experimentally finding the sum of first 'n' odd natural numbers.
6. Establishing the formula for the addition of first 'n' terms of an Arithmetic Progression
7. Verifying the section formula using the graphical method.
8. To verify the Thales Theorem (Basic Proportionality Theorem).

9. Experimentally verifying that the tangent from an external point to a circle is perpendicular to the radius.

10. Finding the number of tangents from a specific point to a circle

Assignment

Do the following worksheet

- 1) What is the Lowest value of $x^2 + 4x + 2$.
- 2) If the squared difference of the zeroes of the quadratic polynomial $f(x) = x^2 + px + 45$, is equal to 144, find the value of p.
- 3) If α and β are the zeroes of the polynomial $x^2 + 4x + 3$, find the polynomial whose zeroes are $1 + \frac{\beta}{\alpha}$ and $1 + \frac{\alpha}{\beta}$.
- 4) Find the quadratic polynomial whose sum and product of the zeroes are $\frac{21}{8}$ and $\frac{5}{16}$.
- 5) Half the perimeter of a rectangular garden, whose length is 4 m more than its width, is 36 m. Find the dimensions of garden.
- 6) Seven times a two-digit number is equal to four times the number obtained by reversing the order of its digits. If the difference of the digits is 3, determine the number.
- 7) Solve for x and y: $2x - y + 3 = 0$ and $3x - 5y + 1 = 0$
- 8) Can the number 6^n , n being a natural number, end with the digit 5? Give reasons.
- 9) If p is prime number, then prove that \sqrt{p} is an irrational.
- 10) A fruit vendor has 990 apples and 945 oranges. He packs them into baskets. Each basket contains only one of the two fruits but in equal number. Find the number of fruits to be put in each basket in order to have minimum number of baskets.

SUBJECT-ART AND CRAFT

● Mandala Art

◆ Materials to be used-

- Hard Board (12x12 inch) (shape - square or round only)
- Fabric Colours
- Mirrors
- Fevicol
- Decorative Accessories

