BHAVAN VIDYALAYA
NEW CHANDIGARH

HOLIDAYS' HOMEWORK

SESSION-2025-26

CLASS - X

Dear Parents,

Warm greetings,

First and foremost, we wish to express our gratitude for your ongoing support. Our students have really worked hard throughout the last session and they are looking forward to the pleasures which a summer break brings.

"***We do not inherit the Earth from our ancestors, we borrow it from our children***"

We are not the owners of the Earth, but temporary stewards entrusted with its care. It is our responsibility to preserve it for the well-being of future generations.
To instill these values in our children, this year's holiday homework has been thoughtfully designed around the theme:

🌱 **"*Reduce, Reuse, Recycle*"**

It aims to cultivate environmental responsibility, creativity, and independent effort among students. Our students will spend around one and a half month with you and we urge you to encourage activities that stimulate their mind, body and creativity.

We would like your co-operation in the following areas:

Outdoor Activities:

- Please take them to Kissan Mandi or Green vendors for purchase of vegetables and fruits and explain them how to look for fresh and ripe product.
- Try to go out for a walk at least 2-3 times a week.
- Hiking, biking, swimming or even gardening will be useful for them to connect to the nature.

Family Time:

- Please spend some time looking at old photographs /videos and enjoy the nostalgic trip down the memory lane.
- A short weekend getaway, having a movie night, sharing stories about your childhood, your school, your family trips, your first jobs, etc over a picnic in the city park, balcony or terrace would be a great way to connect with your child.
- Cherish these moments of togetherness.

Reading:

● Encourage them to read newspapers/books.

● If possible, get membership of local library.

● It helps to improve their reading competency.

Limit Screen Time:

●Engage them in different activities at home, e.g. Allow them to help you in cooking.

●Encourage them to spend some time with grandparents /elderly neighbours.

●Please teach them a few basic domestic chores like washing their own utensils, folding their clothes, washing their clothes, making their bed, maintaining the kitchen garden/garden.

Encourage Journaling:

- The practice of keeping a diary or journal can help them to process emotions and experiences, reduce stress and anxiety.
- It will also come handy when they prepare their portfolio, as required by CBSE.

Let us use this summer break to nurture our children with real knowledge which demands our time and love.

We look forward to welcoming everyone back in the month of July, rested, rejuvenated, and ready for another year of learning and growth.

Hope you will have a great time together!

Warm regards,

Principal

Bhavan Vidyalaya

Chandigarh

📌 GENERAL GUIDELINES

- Holiday Homework must be **neatly handwritten**, completed **independently**, and reflect **sincere effort**.
- All assignments should creatively incorporate the theme **"Reduce, Reuse, Recycle"**.
- **Originality and creativity** are encouraged and will be rewarded.
- Each subject's work should be done on **loose sheets** (ruled or plain,however in case there are subject specific instructions to use a different medium such as scrap file/Activity book or any other format then those specific instructions should be followed).
- Use **separate folders** for each subject, made from **recycled or reused materials** such as:
  - Newspapers
  - Cartons
  - Cardboard
- **Plastic folders and handmade designer sheets will not be accepted.**
- A reference link to create recycled folders has been shared here:
  https://youtube.com/shorts/TtbzVWLocrE?si=rO4DG7v4Z-Ht-w12

  Clearly label each folder with the following details:

  - Student's Full Name
  - Class & Section
  - Subject
  - Roll Number
  - Holiday Homework 2025
- Submit **physical folders** to the respective subject teachers.
- **Submission Date:** 8.07.25-English, Arts
- 9.07.25- Punjabi, Maths
  10.07.25- Computer, EVS 2, Music
  11.07.25- Hindi, Evs1

✍ PRESENTATION GUIDELINES

- Use **ruled sheets** for theory-based work and **plain sheets** for diagrams or artwork, unless stated otherwise by the subject teacher.
- Avoid use of **plastic covers, glitter, sequins, or non-biodegradable decorative materials**.
- Enhance presentation by including:
  - Mind maps
  - Posters or infographics
  - Poems or slogans
  - QR codes linking to digital content

💻 DIGITAL WORK (If Applicable)

- Only prepare and submit digital work (e.g., **PPTs, videos**) if **explicitly instructed**.
- Label your digital files as:
  `Class_Section_Name_Subject_HHW2025`
- Share via the **CSM App** or official school email by the deadline.

SUGGESTIONS FOR CREATIVE INCLUSIONS

To reinforce the theme of sustainability, you may include:

- **Eco-friendly posters** with slogans
- **Crafts or models** using household waste
- **Waste audit reports** or **water-saving diaries**
- **Innovative use of reused packaging** in your presentation

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ASSESSMENT CRITERIA

Criteria	Marks
Originality & Creativity	10
Neatness & Presentation	10
Content Accuracy & Relevance	10
Timely Submission	10
Use of Recycled/Upcycled Material	10
Total	**50**

We hope this Holiday Homework inspires our students to become **creative thinkers**, **responsible citizens**, and **champions of sustainability**.

ENGLISH

ACTIVITY-1 Reflective Travel Journal: "From Fiction to Fact"

Imagine you are a time-traveller on a mission to meet some of history's most inspiring figures. Create a Reflective Travel Journal Entry based on your imaginary visits to Anne Frank or Nelson Mandela.

Write a journal entry (120–150 words). It must include the following:

- A brief summary of your meeting with the character.
- A thoughtful reflection on the character's values and struggles.
- A comparison with a relevant modern-day social issue.
- What you personally learned from their life or actions.

Writing Material: A4 sheets. You may decorate your pages with small illustrations or themed borders to make your journal visually appealing. Bring your creativity and insight to life. Let your journal not just record a journey—but become one.

ACTIVITY-2 A Gentle Reminder: Caring for Tricki After His Grand Recovery

Imagine Tricki has returned home after recovering under Dr Herriot's care. Write a letter from Dr Herriot to Mrs Pumphrey, advising her on:

- How to take proper aftercare of Tricki.
- Include suggestions on his diet, exercise routine, and emotional well-being, while maintaining Dr Herriot's warm, professional tone and subtle humour.
- You may also mention Tricki's time at the surgery and how he benefitted from a simpler lifestyle.

Writing Material: A4 sheets

ACTIVITY-3 Rebus Rewrite: "Amanda! – A Poem in Pictures

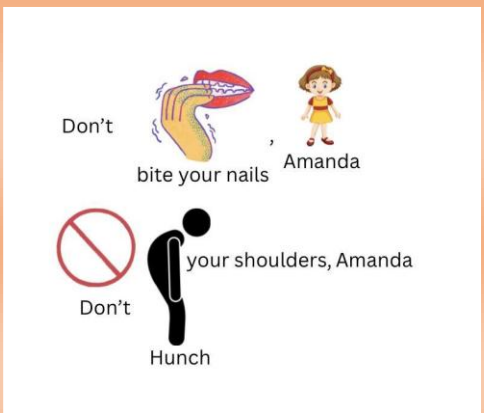
Read the full poem Amanda! carefully and understand the tone, theme, and imagery.
Rewrite all the stanzas of the poem using a Rebus format, where:

- Words or phrases are replaced by relevant visuals (e.g. symbols, icons, drawings, emojis).
- You can use a mix of drawing, cut-and-paste, or printed emojis/symbols.
- Keep the sequence of the poem intact, and preserve the rhyming structure visually if possible.

This assignment may be submitted either as a handwritten copy or as a printout of a digitally prepared version.
Beneath each Rebus stanza, provide:

a. The decoded original stanza in text form
b. A short explanation (1–2 lines) for any tricky or abstract visuals used.

Rebus format sample:



Writing Material: A4 sheets

Note- All activities to be submitted in a neat paper folder. Each Activity sheet should carry your name, class and roll number.

Revision:

- Solve the following exercises in the BBC
- Comprehension Passages: Module 1- Page no 3-11.
- Letter to the Editor: Module 2- Page no 121
- Analytical Paragraph: Module 3- Page no 185
- Grammar: Module 5- Page no 282-285, 298-391and 314-317.
- Revise all chapters covered in class.

हिंदी

1) एक आकर्षक मुख्य पृष्ठ (cover page) बनाइए –

' बड़े भाई साहब' पाठ (क्रमांक 1 से 20)

'तातारा - वामीरो कथा' (क्रमांक 21 से 40)

2. सुप्रसिद्ध लेखक प्रेमचंद की कोई कहानी पढ़ें और उसका सार A4 Sheet में लिखें। यह भी लिखें कि आपने वह कहानी क्यों चुनी?

कार्य पत्रिका

1अपने भाई या बहन की कोई दो स्वभावगत विशेषताओं का उल्लेख कीजिए।

2 ' डायरी का एक पन्ना ' पढ़कर देश के लिए आपके मन में कैसे विचार उत्पन्न होते हैं। संक्षेप में लिखिए।

3 कबीर और मीरा की भक्ति की विशेषताएं बताइए।

4अंदमान निकोबार द्वीप समूह के प्राकृतिक सौंदर्य का वर्णन कीजिए।

5अपनी इच्छा अनुसार गद्य या पद्य में अपने शहर में पावस ऋतु का वर्णन आठ पंक्तियों में कीजिए।

6 समास किसे कहते हैं और वे कितने प्रकार के होते हैं?

7 मोहन को बुद्धिमान और परिश्रमी होने के कारण सफलता मिली।- वाक्य का प्रकार बताइए तथा अन्य दो प्रकारों में इसे रूपांतरित कीजिए ।

8 बहुत अधिक घबरा जाना तथा बहुत अधिक डर जाना।- के लिए एक-एक मुहावरा लिखिए।

9 पद और पदबंध में क्या अंतर है, उदाहरण सहित बताइए।

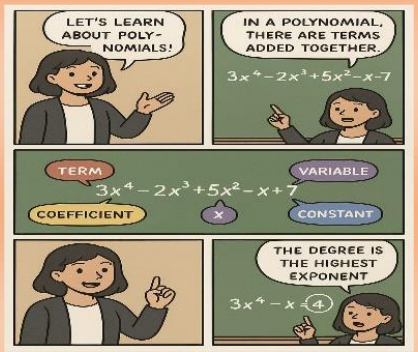
MATHEMATICS

Revise Chapters- 1, 2, 3 and 6.

Activities: All the activities are to be done in the Maths Activity File.

Activity 1: Polynomial Storyboard Task:

Make a short comic strip or story where characters use polynomials in real life (e.g. designing a roller coasters/ satellite dishes/ bridges/in any sport/skate ramp or in predicting profits/finding heights at various intervals of time/ classroom teaching). Include actual polynomial calculations or graphs in the storyline.



Activity 2: Art Integration (Group Activity)

Take cut outs of different triangles (Acute, Right, Obtuse) and artistically verify Basic Proportionality Theorem.

Write your observation in a table.

(Kindly check your Google classroom /CSM app for further reference)

Activity 3: Integrating Maths with Business

You and your friend planned to run a small business together. Use linear equations to model profits, costs, and break-even point.

Here is an example for you:

- Business: You decide to start a small business selling custom T- shirts. You rent a booth at a local market for a day. The cost to rent the booth is $50(fixed cost). Each T – Shirt costs you $5 to make. You sell each T- shirt for $15
  - (i) Variables- Let x be the number of T – shirts sold and y be the total profit.
  - (ii) Create the equation:
    Total cost = Fixed cost + cost per T- shirt = $50 + $5x
    Total revenue = Price per T- shirt x number of T- shirts sold = $15 x
    Profit (y) = Revenue – Total cost
    Y = 15 x – (50 + 5x) Or y = 10 x – 50
  - (iii) Interpret the equation and graph it.

Activity 4: Mangalyaan Mission

Write a note on the mathematical aspects used in this mission and names of mathematicians who worked on this mission along with the relevant pictures. (2-3 pages)

Assignment

1.What is the sum of exponents of prime factors in the prime-factorisation of 196.

2.Find the LCM of smallest two-digit composite number and smallest composite number.

3.Prove that $5 - 2\sqrt{3}$ is an irrational number. It is given that $\sqrt{3}$ is an irrational number.

4.The length, breadth and height of a room are 8 m 50 cm, 6 m 25 cm and 4 m 75 cm respectively. Find the length of the longest rod that can measure the dimensions of the room exactly.

5. State Fundamental theorem of Arithmetic. Is it possible that HCF and LCM of two numbers be 24 and 540 respectively. Justify your answer.

6.In a teachers' workshop, the number of teachers teaching French, Hindi and English are 48, 80 and 144 respectively. Find the minimum number of rooms required if in each room the same number of teachers are seated and all of them are of the same subject.

7. A sweet shopkeeper prepares 396 Gulab jamuns and 342 ras-gullas. He packs them into containers. Each container consists of either Gulab jamun or ras-gullas but have equal number of pieces. Find the number of pieces he should put in each box so that number of boxes are least.

8. On a morning walk, three persons steps off together and their steps measure 40 cm,42 cm, and 45 cm respectively. What is the minimum distance each should walk so that each can cover same distance in complete steps?

9. Find whether the lines representing the following pair of linear equations intersect at a point, are parallel or coincident: $3x+y=7, 6x+2y=8$

10. Draw the graph of the equations $x - y + 1 = 0$ and $3x + 2y - 12 = 0$. Using this graph, find the values of x and y which satisfy both the equations.

11. Half of the difference between two numbers is 2. The sum of the greater number and twice the smaller number is 13. Find the numbers.

12. A fraction becomes 1/ 3 when 1 is subtracted from the numerator and it becomes 1/ 4 when 8 is added to its denominator. Find the fraction.

13. The present age of a father is three years more than three times the age of his son. Three years hence the father's age will be 10 years more than twice the age of the son. Determine their present ages.

14. A part of monthly hostel charges in a college hostel are fixed and the remaining depends on the number of days one has taken food in the mess. When a student A takes food for 25 days, he must pay ₹ 4,500, whereas a student B who takes food for 30 days, must pay ₹5,200. Find the fixed charges per month and the cost of food per day.

15. Find the value of k for which the system of equations $x+2y=5$ and $3x+ky+15=0$ has no solution.

16. Find the relation between p and q if $x=3$ and $y=1$ is the solution of the pair of equations $x- 4y+p=0$ and $2x+y-q-2=0$.

17. For what value of k, does the system of linear equations $2x + 3y = 7$, $(k - 1)\, x + (k + 2)\, y = 3k$ have an infinite number of solutions?

18. If α and β are the zeroes of the quadratic polynomial $(x) = x2 - x - 4$, find the value of 1/α+ 1/β- αβ

19. If one zero of the quadratic polynomial $x2 + 3x + k$ is 2, then find the value of k.

20. Form a quadratic polynomial, the sum and product of whose zeroes are -3 and 2 respectively.

21. If α and β are zeroes of the polynomial $x2-(x+1) +c$ such that $(\alpha+1)\,(\beta+1) = 0$, then find the value of c.

22. If one zero of the polynomial $(x)=6x2+37x-(k-2)$ is reciprocal of the other, then find the value of k.

23.Find the value of k such that the polynomial $x2-(k+6)\ x+2(2k-1)$ has sum of its zeroes equal to half of their product.

24. If α and β are the zeroes of $(x)=6x2-7x+2$. Find the quadratic polynomial whose zeroes are $1/\ \alpha$ &$1/\ \beta$.

25.Find the quadratic polynomial, sum and product of whose zeroes are -1 and -20 respectively. Also, find the zeroes of the polynomial so obtained.

26.Find the zeroes of quadratic polynomial $6x2-3-7x$ and verify the relationship between the zeroes and the coefficients of the polynomial.

27. Find the largest possible positive integer that divides 125, 162 and 259 leaving remainder 5, 6 and 7 respectively.

28. How many irrational numbers lie between √2 and √3? Write any two of them.

29. If HCF of 65 and 117 is expressible in the form $65n-117$, then find the value of n.

30. Find the least number which when divided by 12,16 and 24 leaves remainder 7 in each case.

SCIENCE

CHEMISTRY

ACTIVITY -1

"The food you eat can be either the safest and most powerful form of medicine or the slowest form of poison"

(i) Perform an activity to know the nature of foodstuff (5 food items) you eat by using natural indicator. (Homemade – Hibiscus or red cabbage extract).

S.NO.	FOOD ITEMS	COLOUR CHANGE	NATURE(ACIDIC /BASIC)
1 to 5			

ACTIVITY -2

Chemical Reactions in Daily Life

1. Research (Identification):

Identify at least 10 chemical reactions you encounter in your daily life. Examples include:

Cooking (e.g., baking), Digestion, Rusting of iron, Burning of fuels, Ripening of fruits, hotosynthesis, Curd formation, Acid-base reactions (e.g., antacids), Respiration, Electrolysis (e.g., in batteries)

2. Balanced Chemical Equations:

Write the balanced chemical equation for each identified reaction.

(Where full equations are not possible, write a simplified reaction or word equation.)

Example: Burning of LPG:

$C_4H_{10} + 13O_2 \rightarrow 8CO_2 + 10H_2O$

(Type: Combustion, Exothermic)

3. Categorization:

Classify each reaction as one of the following:

Combination reaction, Decomposition reaction, Displacement reaction, Double displacement reaction, Oxidation-Reduction (Redox), Exothermic or Endothermic

Presentation Format:

Support both the activities with pictures and diagrams and use A3/A4 ivory sheets. Submit your work in a handmade decorative folder.

PHYSICS

Mission: Eye-Spy Challenge – Become a Vision Detective!

You've just been hired as a Vision Detective by the "Eye-Spy Investigation Agency" to crack a curious case involving blurry vision, eye strain, and unusual glasses! Your mission is to research common eye defects and create an evidence board (poster) to present your findings.

Your Investigation Should Include:

a) Suspects (Eye Defects):

- Myopia (Short-sightedness)
- Hypermetropia (Long-sightedness)

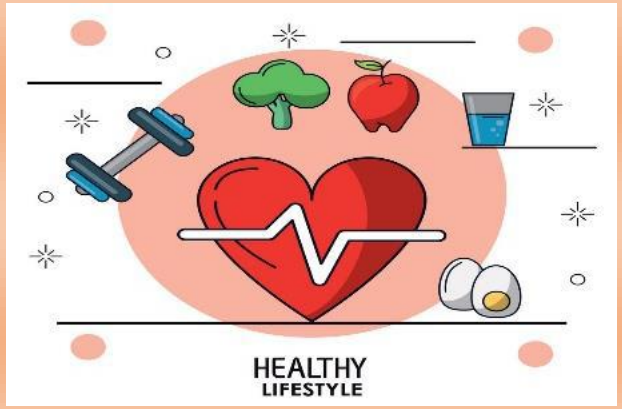
b) For Each Suspect, Provide:

- Alias: The defect's name
- Modus Operandi: How it affects vision
- Cause: What leads to this condition
- Clues/Symptoms: What signs a person might notice
- Correction Methods: Lenses, surgery, or devices used to fix it
- Sketches or diagrams (Draw)

Poster Guidelines:

- Size: A3 sheet or chart paper.
- Add drawings of eye structure and defects
- Add fun facts like: "Did you know carrots can't actually fix your vision?"

BIOLOGY



(i) Poster on Healthy Heart (Roll No.31-40), Organ Donation (11-20), Smoking is injurious to health (21-30), Tobacco Kills (1-10)
(Size A-4 sheet, can be hand drawn or lT skill can be used)

(ii) Solve the worksheets.

LIFE PROCESSES WORKSHEET

TRANSPORTATION AND EXCRETION

Q1. DIRECTION: The following question consists of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true but R is not the correct explanation of A.

(c) A is true but R is false

d) A is false but R is true.

(e) Both Assertion and Reason are false.

1. **Assertion:** Interauricular septum separates left atrium from right atrium

Reason: Interventricular septum separates left from right ventricle.

2. **Assertion:** All the arteries carry oxygenated blood from the heart to various organs.

Reason: Pulmonary vein carries deoxygenated blood to the heart.

3. **Assertion:** Haemodialysis can save the life of patients with kidney failure.

Reason: Waste products like urea can be removed from the blood by haemodialysis.

4. **Assertion:** Excretion is the biological process by which harmful wastes are removed from an organism's body.

Reason: The mode of excretion is completely same in both unicellular and multicellular organisms.

Q2. Select the most suitable option:

1. Instrument used to measure blood pressure is

(a) barometer (b) photometer

(c) thermometer (d) sphygmomanometer

2. Which of the following is not a disorder of the circulatory system?

(a) Atherosclerosis (b) Arteriosclerosis

(c) Arthritis (d) Angina

3. The function of the glomerulus and Bowman's capsule of the nephron is to

(a) reabsorb water into the blood (b) eliminate ammonia from the body

(c) reabsorb salts and amino acids (d) filter the blood and capture the filtrate

4.. Structural and functional unit of kidney is

(a) renal pelvis (b) nephridia

(c) nephron (d) hilum

5.. The movement of food in phloem is called:

(a) transpiration (b) translocation

(c) respiration (d) evaporation

6. Normal blood pressure (systolic/diastolic) is

(a) 120/80 mm of Hg (b) 160/80 mm of Hg

(c) 120/60 mm of Hg (d) 180/80 mm of Hg

7. Which one indicates hypertension or high Blood Pressure (BP)?

(a) 120/80 (b) 110/70

(c) 130/80 (d) 140/90

8. This substance cannot pass through semipermeable walls of glomerulus

(a) Globin (b) Albumin

(c) Blood cells (d) All of the above

9. The reason why the right kidney is slightly lower than the left is that

(a) the left kidney is bigger than right.

(b) considerable space occupied by the heart.

(c) Considerable space occupied by the liver on the right side.

(d) the right kidney is bigger than the left.

10. Which of the following organisms have single circulation?

a. Fishes

b. Mammals

c. Birds

d. Reptiles

Q3. Fill in the blanks:

1. The rate of breathing in _____ animals is much faster than in _____ animals.

2. Artery that supplies blood to all parts of the body is called ____.

3. Normal diastolic blood pressure in a normal healthy adult human is_____

4. Plants use the energy stored in ATP to accomplish the process of transportation of_____.

WORKSHEET LIFE PROCESSES

NUTRITION AND RESPIRATION

Q1. DIRECTION: The following question consists of two statements - Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true but R is not the correct explanation of A.

(c) A is true but R is false

(d) A is false but R is true.

(e) Both Assertion and Reason are false

1. **Assertion:** In the daytime, CO_2 generated during respiration is used up for photosynthesis.

Reason: There is no CO_2 release during day.

2. **Assertion:** Raw materials needed for photosynthesis are carbon dioxide, water and minerals.

Reason: Nutrients provide energy to an organism

3. **Assertion:** Lungs always contain a residual volume of air.

Reason: It provides sufficient time for oxygen to be absorbed and for carbon dioxide to be released.

4. **Assertion:** Digestion breaks large complex molecules to simple smaller molecules which can be easily absorbed.

Reason: Digestion is necessary for the absorption of all molecules.

5. **Assertion:** Muscles of stomach wall possess thick layers of muscles.

Reason: These muscles help in mixing the food with the enzymes presents in the alimentary canal

6. **Assertion:** Respiration is a biochemical process opposite to photosynthesis.

Reason: Energy is released during respiration

Q2. Select the appropriate options:

1. Which cell organelle is involved in breakdown of glucose to produce energy for metabolic activities?

(a) Mitochondria (b) Chloroplast (c) Endoplasmic reticulum (d) Golgi body

2. Choose the forms in which most plants absorb nitrogen:

i) Proteins ii) Nitrates and nitrites iii) Urea iv) Atmospheric nitrogen

Choose the correct option.

(a) i and ii (b)ii and iii (c) iii and iv (d) i and iv

3. Villi present on the internal wall of intestine help in the

(a) emulsification of fats (b) breakdown of proteins

(c) absorption of digested food (d) digestion of carbohydrates

4. Only two of the following Statements accurately describe what happens in the mouth.

i. Amylase breaks down large starch molecules into smaller maltose molecules.

ii. Chewing increases the surface area of food for digestion.

iii. Saliva emulsifies fats into smaller droplets.

iv. Teeth break up large insoluble molecules into smaller soluble molecules.

which statements are correct?

(a)i and ii (b) ii and iii (c) iii and iv (d) i andiv

5. During vigorous physical exercise, lactic acid is formed from glucose inside the muscle cells because

(a) there is lack of oxygen (b) there is lack of water

(c) there is excess of carbon dioxide (d) none of the above

6. Which process occurring in human body does not involve energy from respiration?

(a) Contraction of heart muscle (b) Diffusion of oxygen from the alveoli into the blood

(c) Digestion of bread (d) Maintaining a constant body temperature

7. When a few drops of iodine solution are added to rice water, the solution turns blue- black in colour. This indicates that rice water contains:

(a) fats (b) complex proteins (c) starch (d) simple proteins

8. The exit of unabsorbed food material is regulated by

(a) liver (b) anus (c) small intestine (d) anal sphincter

9. Glycolysis process occurs in which part of the cell?

(a) Cytoplasm (b) Nucleus (c) Mitochondria (d) Chloroplast

10. The respiratory pigment in human beings is:

(a) carotene (b) chlorophyll (c) haemoglobin (d) mitochondria

Q2. Fill in the blanks:

1. The exit of food from the stomach is regulated by a ……. muscle.

2. ……. is the longest part of the alimentary canal.

3. The process of breakdown of glucose, (a six-carbon molecule) into pyruvate, (a three-carbon molecule), takes place in the ……. .

4. ……. is the site of the complete digestion of carbohydrates, proteins and fats.

5. Breaking of pyruvate using oxygen takes place in the ……. .

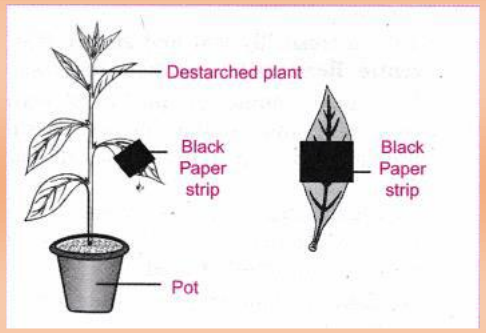
6. Rings of ……. are present in the wind pipe to ensure that the air passage doesn't collapse.

7..... (of bile juice) help in emulsification of fats.

8. Diffusion is insufficient to meet ..... requirement of multicellular organisms like humans.

Read the following passage and answer the questions mentioned below:

The figure shown below represents an activity to prove the requirements for photosynthesis. During this activity, a plant with destarched leaf is taken. Leaf is partially covered with black paper both on upper and lower surface. The plant is exposed to sunlight for few hours and a starch test is performed.



Q1. What is the aim of the experiment?

a. Light is necessary for photosynthesis.

b. Chlorophyll is necessary for photosynthesis.

c. Carbon dioxide is necessary for photosynthesis.

d. Water and minerals are necessary for photosynthesis.

Q2. What colour does the uncovered portion of leaf show after the experiment?

a. Black b. Blue-black c. Green d. Yellow

Q3. Which chemical is used for this experiment for a proper result?

a. Metanil yellow b. Iodine c. Safranin d. Eosin

Q4. Which process is considered to be the reverse of the above process in the experiment?

a. Transpiration b. Respiration c. Evaporation d. Translocation

WORK SHEET

CHEMICAL REACTIONS AND EQUATIONS

Q1. Magnesium ribbon is rubbed before burning because it has a coating of

(a) basic magnesium carbonate

(b) basic magnesium oxide

(c) basic magnesium sulphide

(d) basic magnesium chloride

Q2. Which of the following statements about the given reaction are correct?

$3Fe(s) + 4H_2O(g) \rightarrow Fe_3O_4(s) + 4H_2(g)$

(i) Iron metal is getting oxidized

(ii) Water is getting reduced

(iii) Water is acting as reducing agent

(iv) None of the above

(a) i and iii (b) i and ii (c) ii and iv (d) iii and iv

Q3. Which of the following are exothermic processes?

(i) Reaction of water with quick lime

(ii) Dilution of an acid

(iii) Evaporation of water

(iv) Sublimation of camphor (crystals)

(a) (i) and (ii)

(b) (ii) and (iii)

(c) (i) and (iv)

(d) (ii) and (iv)

Q4. A dilute ferrous sulphate solution was gradually added to the beaker containing acidified permanganate solution. The light purple colour of the solution fades and finally disappears. Which of the following is the correct explanation for the observation?

(a) $KMnO_4$ is an oxidising agent, it oxidises $FeSO_4$.

(b) $FeSO_4$ acts as an oxidising agent and oxidises $KMNO_4$.

(c) The colour disappears due to dilution; no reaction is involved.

(d) $KMnO_4$ is an unstable compound and de-composes in presence of $FeSO_4$ to a colourless compound.

Q5. Fill in the blanks:

1. The addition of oxygen to a substance is called ……. whereas removal of oxygen is called ……. .

2. The addition of hydrogen to a substance is called ……. whereas removal of hydrogen is called ……. .

3. Precipitation reactions produce insoluble ……. .

4. Reactions in which energy is given out are known as ……. . 5. Reaction in which an element displaces another element from its compound is called …….

5. Two antioxidants which are usually added to fat and oil containing foods to prevent rancidity, are ……., ……. .

7 ……. is the process in which metals are eaten up gradually by the action of air, moisture or a chemical on

their surface.

8. $2FeSO_4 \rightarrow Fe_2O_3 + SO_2 +$ …….

9. $Na_2SO_4 + BaCl_2 \rightarrow$ ……. + 2NaCl

10. Complete the missing components/variables given as x and y in the following reactions:

(a) $Pb(NO_3)_2 (aq) + 2KI (aq) \rightarrow PbI_2 (x) + 2KNO_3 (y)$

(b) $Cu (s) + 2AgNO_3 (aq) \rightarrow Cu(NO_3)_2 (aq) + x (s)$

Following questions consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true but R is not the correct explanation of A.

(c) A is true but R is false.

(d) A is false but R is true.

Q5. **Assertion (A):** Decomposition of vegetable matter into compost is an example of exothermic reactions.

Reason (R): Exothermic reaction are those reactions in which heat is evolved.

Q 6. **Assertion (A):** When HCl is added to zinc granules, a chemical reaction occurs.

Reason (R): Evolution of a gas and change in colour indicate that the chemical reaction is taking place.

CASE STUDY

Corrosion is the phenomenon of deterioration of surface of metal in presence of air and moisture. It is a natural process and in the presence of a moist atmosphere, chemically active metals get corroded. This is an oxidation reaction. Rusting is the process where iron corrodes due to exposure to the atmosphere. The main circumstance of corrosion occurs with iron because it is a structural material in construction, bridges, buildings, rail transport, ships, etc. Aluminium is also an important structural metal, but even aluminium undergoes oxidation reactions. However, aluminium doesn't corrode or oxidize as rapidly as its reactivity suggests. Copper (Cu) corrodes and forms a basic green carbonate.

(i) What is rusting?

(ii) Which two metals do not corrode easily?

(iii) Write the chemical name of the compound formed on corrosion of silver.

(iv) Corrosion is

(a) a redox reaction

(b) a reduction reaction

(c) a displacement reaction

(d) an oxidation reaction

ASSIGNMENT

LIGHT: REFLECTION AND REFRACTION

Q1 A plane mirror produces a magnification of

a) -1 b) + one c) Zero d) Between 0 and infinity

Q2 A light ray incident normally on a plane mirror suffers deviation of

a) 0 degree b)90 degree c)180 degree d) 360 degree

Q3 A Ray of light incident normally on interface separating the two media suffers a deviation of

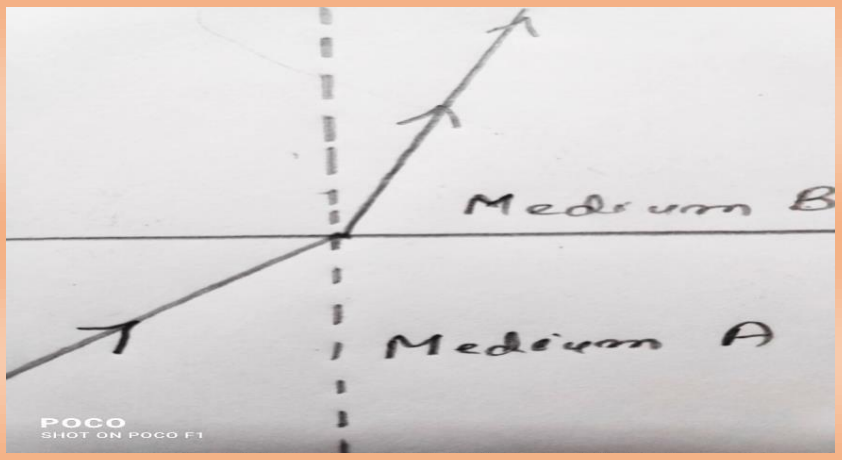
a) Zero degree b) 90 degree c) 180 degree d) 30 degree

Q4 An object is placed at a distance of 40 cm in front of a concave mirror of focal length 20cm. The image produced is

a) Virtual and erect b) Real and erect

c) Real, inverted and of the same size as that of object d) Real, inverted and diminished

Q5 A ray of light travels from medium A to medium B as shown in the figure. The refractive index of medium B relative to medium A is



a) Greater than unity b) Less than unity

c) Equal to unity d) Zero

Q6. A child is standing in front of a magic mirror. He finds the image of his head bigger, the middle portion of her body the same size and that of the legs smaller. The magic mirror from the top is a combination of

a) Plane, convex and concave

b) Convex, concave and plane

c) Concave, plane and convex

d) Convex, plane and concave

Q7. A Ray of light travels from medium A to medium B. Angle of incidence in medium A is 60 degree and angle of refraction in medium B is 45 degree. Refractive index of medium B relative to medium A is

a) $\sqrt{3} / \sqrt{2}$ b) $\sqrt{2} / \sqrt{3}$

c) $1 / \sqrt{2}$ d) $\sqrt{2}$

Q8. You are given water, mustard oil, glycerine and kerosene. A Ray of light incident obliquely at same angle in these media would bend the most in
a) kerosene
b) water
c) mustard oil
d) glycerine
Q9. The magnification produced by a spherical mirror is - 1.5. The nature of the image formed must be
a) Real, inverted and magnified
b) Real, inverted and diminished
c) Virtual, erect and magnified
d) Virtual, erect and diminished
Q 10. The magnification produced by a spherical mirror is +0.5. The mirror must be
a) convex mirror
b) concave mirror
c) plane mirror
d) any of the above
Q11. The linear magnification produced by a lens is + 2.0. The nature of the image formed must be
a) Real inverted and magnified
b) Virtual, erect and magnified
c) Virtual erect and diminished
d) Real, inverted and diminished
Q12. In the above question, the nature of lens must be
a) convex
b) concave
c) Any of the above
Q13. A convex lens and a concave lens of focal length 20 cm are put in contact with each other. What is the focal length of the equivalent lens so formed?
a) Zero
b) 20 cm
c) 40cm
d) Infinity

Q14. A convex lens of focal length 25 cm and a concave lens of focal length 20 cm are put in contact with each other. What is the power of the equivalent lens so formed?
a) +1 D
b) -1 D
c) +9 D
d) -9 D
Q15. The linear magnification produced by a lens is - 3. If an object is placed at a distance of 30 cm from the lens, what is the position of the image formed?
a) -30 cm
b) -90 cm
c) +90 cm
d) +10 cm
Q16. A concave mirror forms an erect image of twice the object size, the object distance from the mirror is
a) f/ 2
b) 3f/2
c) 2f
d) 5f

Q17. Power in diopter and focal length in metre are related as

a) P× f =1 b) P + f = 1

c) P - f =1 d) P/f = 1

Q18. An object is placed at a depth d in a denser medium of refractive index n. it is viewed from air. The apparent depth is

a) equal to d

b) greater than d

c) less than d

d) depends upon the value of n

Q19. An object is placed at a distance of d in front of a plane mirror. The distance between object and its virtual image is

a) 2d b) d

c) – d d)- 2d

1. . A converging lens forms a real and inverted image of an object at a distance of 100 cm from it. Where an object should be placed in front of the lens so that the size of the image is twice the size of the object? Also calculate the power of the lens.
2. What will be the image distance of an object placed at 15 cm in front of a concave lens of focal length 30cm? What is the nature of the image formed?
3. Image formed by a lens is half the height of an object placed at 50 cm from it. What will be the focal length, power and nature of the lens?
4. An object is placed at a distance of 60 cm from a converging lens of focal length 30 centimeter. What is the position, nature and size of the image formed? Given that the size of the object is 5 cm.
5. Speed of light in water is 2.25 ×10 ^8 m/s. Find the refractive index of water with respect to air?
6. An object of height 6 cm is placed perpendicular to the principal axis of a concave lens of focal length 5cm. Determine the position, size and nature of the image if distance of object from the lens is 10 cm.
7. Focal length of a concave mirror is 12cm. Where should a 4 cm long object be placed so that its image of 1 cm in length is obtained?
8. The radius of curvature of a concave mirror is 40 cm and an object of height 4 cm is placed at a distance of 30 cm from the mirror. Find the position, nature and height of the image formed.
9. The refractive index of water with respect to air is 4/3 and the refractive index of glass with respect to air is 3/2.
   (i) What is the refractive index of water with respect to glass?
   (ii) What is the refractive index of glass with respect to water?
   (iii) In which medium the light travels faster, water or glass?
10. On entering into a medium from air, the speed of light becomes half of its value in air. Find the refractive index of that medium with respect to air?
11. An object 50 cm tall is placed on the principal axis of a convex lens. Its 20 cm tall image is formed on the screen placed at a distance of 10 cm from the lens. Calculate the focal length of the lens.
12. At what distance should an object be placed from a lens of focal length 25cm to obtain its image on a screen placed at a distance of 50 cm from the lens? What will be the magnification produced in this case?
13. An object of height 4 cm is placed at a distance of 30 cm from the optical centre of a convex lens of focal length 20cm. Find the position and size of the image formed. Also, find ratio of the the size of image to the size of object. Draw a ray diagram to to show image formation in this case.
14. An object is held at a distance of 60 cm from a convex mirror of focal length 20cm. At what distance from the convex mirror should a plane mirror be held so that image in the two mirrors coincide?

15. A convex lens made of a material of refractive index n2 is kept in a medium of refractive index n1. A parallel beam of light is incident on the lens. Complete the path of rays of light emerging from the convex lens if

n1 <n2

n1 >n2

n1= n2

16. With reference to the above question, complete the path of rays of light if the lens were concave instead of convex.

17. An object 3 cm high is placed perpendicular to the principal axis of a concave lens of focal length 7.5 cm. The image is formed at a distance of 5 cm from the lens. Calculate the distance at which object is placed, size and nature of the image formed.

18. An object 3 cm high is held at a distance of 50 cm from a diverging mirror of focal length 25cm. Find the nature, position and size of the image formed

19. A student places a candle flame at a distance of 60 cm from a convex lens of focal length 10cm and focuses the image of the flame on the screen. After that he gradually moves the flame towards the lens and each time focuses the image on the screen.

(i) In which direction towards or away from the lens does he move the screen to focus the image?

(ii) How does the size of the image change?

(iii) How does the intensity of the image change as the flame moves towards the lens?

(iv) Approximately for what distance between the flame and the lens the image formed on the screen is inverted and of the same size?

20. The image of an object formed by a mirror is real, inverted and is of magnification -1. If the image is at a distance of 40 cm from the mirror where is the object placed? Where would the image be if the object is moved 20cm towards the mirror?

21. For what position of the object, a convex lens of focal length 15cm makes an image double the size of the object. Given that image can be real as well as virtual.

SOCIAL SCIENCE

INSTRUCTIONS:

- All activities to be done in one activity file.
- Don't waste paper, use plastic or non-biodegradable material in your Activity File.
- Be an ECO WARRIOR

Economics

Consumer Rights.

ACTIVITY 1

Draw a poster, colour (one page -two sides of the activity file) covering all the consumer rights.

ACTIVITY 2

Write in brief about:

a) Who is a consumer?

b) How is a consumer exploited?

c) Consumer Movement.

d) The six CONSUMER RIGHTS.

e) Consumer Protection Act.

ACTIVITY 3

Research activity - Find out certification and accreditation pertaining to the following: (Write about each one of them in three, four sentences and draw their symbols).

a) ISI

b) AGMARK

c) FSSAI

d) HALLMARK

e) NABH

f) NABL

Note: The project work should be hand written with proper depictions.

Democratic Politics

(i) Take a political map of India and number the states of India. (1-28)
(ii) On the next page, you will write the number, name of the state with the political parties ruling the state government in the 28 states. (colour the map with pencil colours only)

Interdisciplinary project- A group project

Make a PowerPoint presentation (twenty slides) in the IDP integrating history, economics, and geography.

Following topics have to be covered in the project:

A. The impact of globalisation on India, covering various social groups as traders, students, tourists, and manufacturers, etc.

B. Discuss the significance of roadways, Railways and Communication in the Indian economy and Globalisation. Enumerate the challenges faced by the Economy during this process.

C. Supplement your project with current examples and those from History such as tariff wars, and Silk routes.

D. Presentations on the project would take place in the month of July. Other details would be discussed in the class.

- Read the newspaper daily.
- Revise all the chapters done till the month of May.
- Take print out of each sheet and answer the following questions:

GEOGRAPHY

Q1- Fossil fuels are what kind of resources?

a) Biotic b) Abiotic c) Renewable d) Non-renewable

Q2-Which of the following type of resource is iron ore?

a) Renewable b) biotic c) Flow d) non-renewable

Q3- Under which category will Tidal energy fall?

a) Developed b) Renewable c) Biotic d) Non-renewable

Q4- In June —---------- more than 100 heads of state met at Rio for the first earth summit.

a) 1991 b) 1992 c) 1993 d) 1994

Q5 The state of Rajasthan is very well endowed with Solar energy and—---------- but lacks water resources.

a) geothermal b) Tidal energy c) Wind energy d) Hydel energy

Q6 —---------- accounts for 30 percent of the total surface area of India.

a) plateaus b) mountains c) Plains d) islands

Q7 The NSA is more than 80 percent in

a) Madhya Pradesh b) Mizoram c) Tamil Nadu d) Punjab

Q8 An Example of International resource is

a) coal b) open seas c) land d) uranium

Q9 The Brundtland Commission Report published in 1987 for the first time talked about

a) sustainable development b) resources depletion c) Agenda 21 d) Forests

Q10 Land left uncultivated for less than one year is called

a) net sown area b) gross cropped area c) waste land d) fallow land

Q11 Red soil gets its red colour from

a) diffusion of iron ore b) hydration c) parent rock d) time

Q12 Chambal ravine is an example of

a) gully erosion b) sheet erosion c) wind erosion d) sea waves

HISTORY

1. Champaran satyagraha was a struggle against _____.
2. Kheda satyagraha took place in support of _____.
3. Rowlatt act was passed by the _____
4. Ottoman emperor was the _____ head of Islamic world.
5. Khilafat Committee was headed by _____.
6. The book written by Gandhi where he talks about not cooperating with the British is _____.
7. The party that did not boycott the Council elections in 1920 was _____.
8. The Awadh peasant movement was headed by _____.
9. The tribal peasants in Gudem Hills revolted because _____.
10. Many Congress leaders were reluctant to join the non-cooperation movement because _____.
11. Swaraj party was formed by _____.

12. The Inland Emigration Act of 1859 stated that _____.

13. Gandhiji had to call off the non-cooperation movement because _____.

14. People were unable to buy and wear khadi as it was _____.

15. The silk routes extended in the continents of _____.

16. The religions that spread on the Silk routes were _____.

17. The Great Irish potato famine resulted in _____.

18. Two reasons why people were going to America were _____.

19. The world shrank in the 16th century because _____.

20. China adopted the policy of _____ in the 15th century.

ECONOMICS

Q1. Per capita income hides _____.

Q2. Human Development Report is published by_____.

Q3. Name the indicators which are used to measure HDI?

Q4. What is BMI? Give its formula.

Q5. How do ration shops help in improving the nutritional levels of the people?

Q6. Why does Kerela have a low Infant Mortality Rate?

Q7. What are renewable resources?

Q8. What is the criteria used by World Bank for comparing countries?

Q9. What is Net Attendance Ratio?

Q10.Assume there are four families in a country. The average per capita income of these families is Rs.5,000.If the income of three families is Rs.4,000, Rs.7,000 and Rs.3,000 respectively, find the income of the fourth family?

Q11.The main aim of formation of WTO is _____.

Q12.SEZs are set up by Govt. to _____.

Q13.What is Liberalisation?

Q14. _____ has made the latest models of different products produced in different parts of the world available for everyone.

Q15.Define Investment.

Q16.What is Foreign Investment?

Q17. Where do MNCs set up their production units?

DEMOCRATIC POLITICS

1) Which two languages are generally spoken in Belgium?

2)The community government in Belgium is elected by_____

3) What is division of power between higher and lower levels of government known as _____

4) State any two reasons responsible for the ethnic tension in Belgium.

5) What is a coalition government?

6) Why is power sharing necessary in democracy? State two reasons.

7) What is decentralization?

8) Write down two subjects included in the union list of India.

9) The federal system has dual objectives. Mention the objectives.

10) Why do we say that India has a Rigid Constitution?

11) Who is the executive head of the Panchayat and Municipal Corporation?

12) Assess the need for local government in 2 points.

PUNJABI

1.	ਪੰਜਾਬ ਦੇ ਖ਼ਾਸ ਸ਼ਹਿਰ ਜਿਵੇਂ ਜਲੰਧਰ ਸ਼ਹਿਰ ਖੇਡਾਂ ਦੇ ਸਮਾਨ ਲਈ ਅਤੇ ਲੁਧਿਆਣਾ ਸ਼ਹਿਰ ਗਰਮ ਕੱਪੜਿਆਂ ਲਈ (**FAMOUS CITIES**) ਮਸ਼ਹੂਰ ਹਨ ਉਸ ਦੀ ਤਸਵੀਰ ਲਗਾ ਕੇ ਉਹਨਾਂ ਬਾਰੇ 6-8 ਵਾਕਾਂ ਵਿੱਚ ਜਾਣਕਾਰੀ ਲਿਖੋ | ਇਹ ਕੰਮ ਇੱਕ **A4** ਸ਼ੀਟ ਉੱਤੇ ਕਰੋ |
2.	ਪੰਜਾਬ ਦੇ ਕੋਈ ਚਾਰ ਮਸ਼ਹੂਰ ਦੇਸ਼ ਭਗਤਾਂ ਦੀ ਤਸਵੀਰ ਲਗਾ ਕੇ ਉਹਨਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਲਿਖੋ |
3.	ਆਓ ਭਾਸ਼ਾ ਦੇ ਗਿਆਨ ਨੂੰ ਵਧਾਈਏ: ਪਿਆਰੇ ਬੱਚਿਓ! ਵਿਆਕਰਨ ਦੀ ਕਿਤਾਬ ਵਿੱਚ ਦਿੱਤੇ ਗਏ ਲੇਖ ਪੜ੍ਹੋ |
4.	ਆਪਣੇ ਆਪ ਨੂੰ ਤੰਦਰੁਸਤ ਰੱਖਣ ਲਈ ਹਰ ਰੋਜ਼ ਯੋਗਾ ਕਰੋ ਅਤੇ ਉਸ ਦੀ ਇੱਕ ਤਸਵੀਰ ਲਗਾਓ | ਯੋਗਾ ਕਰਨ ਦੇ ਪੰਜ ਫਾਇਦੇ ਵੀ ਲਿਖੋ |

ਜਮਾਤ ਦਸਵੀਂ (X) ਕਾਰਜਪੱਤਰ

ਪ੍ਰ:1 ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਦੀਆਂ ਪ੍ਰਸਿੱਧ ਬਾਣੀਆਂ ਦੇ ਨਾਂ ਲਿਖੋ |

ਉ: ----------

ਪ੍ਰ:2 'ਸੋ ਕਿਉ ਮੰਦਾ ਆਖੀਐ' ਸ਼ਬਦ ਵਿੱਚ 'ਭੰਡ' ਸ਼ਬਦ ਦਾ ਕੀ ਅਰਥ ਹੈ ?

ਉ: ----------

ਪ੍ਰ:3 ਗੁਰੂ ਅਮਰਦਾਸ ਜੀ ਨੇ ਬਾਉਲੀ ਦਾ ਨਿਰਮਾਣ ਕਿੱਥੇ ਕਰਵਾਇਆ ?

ਉ: ----------

ਪ੍ਰ:4 'ਕਿਰਪਾ ਕਰਿ ਕੈ ਬਖਸਿ ਲੈਹੁ' ਸ਼ਬਦ ਵਿੱਚ 'ਖਤੇ' ਤੋਂ ਕੀ ਭਾਵ ਹੈ ?

ਉ: ----------

ਪ੍ਰ:5 ਕੁਲਫ਼ੀ ਕਹਾਣੀ ਕਿਸ ਲੇਖਕ ਦੀ ਰਚਨਾਂ ਹੈ ?

ਉ: ----------

ਪ੍ਰ:6 ਕਰਤਾਰ ਸਿੰਘ ਦਾ ਪਿਤਾ ਕਿਹੜੇ ਦੇਸ਼ ਗਿਆ ਸੀ ?

ਉ: ----------

ਪ੍ਰ:7 ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ ਦੀਆਂ ਕਿੰਨੀਆਂ ਕਿਸਮਾਂ ਹਨ ?

ਉ: ----------

ਪ੍ਰ:8 'ਕਲਮ ਦਾ ਧਨੀ ਹੋਣਾ , ਖੂਹ ਦੀ ਮਿੱਟੀ ਖੂਹ ਨੂੰ ਲੱਗਣੀ' ਮੁਹਾਵਰਿਆਂ ਦੇ ਵਾਕ ਬਣਾਓ |

ਪ੍ਰ:9 ਬਹੁ ਅਰਥਕ ਸ਼ਬਦ ਕੀ ਹੁੰਦੇ ਹਨ ?

ਉ: ----------

ਪ੍ਰ:10 ਹੇਠ ਲਿਖਿਆਂ ਵਿੱਚੋਂ ਕਿਹੜਾ ਸ਼ਬਦ 'ਅਰਕ' ਦਾ ਬਹੁ ਅਰਥਕ ਨਹੀਂ ਹੈ ?

ਕੂਹਣੀ , ਪਸੀਨਾ , ਖੇਤ , ਸਤ

ਉ:----------

COMPUTERS

Design a Board Game: "Mission: Internet Safety"

Make a board game that teaches about online safety, cyberbullying, and netiquette.

Materials: Chart paper, dice, coloured pens, cut-out cards.

Include:

- "Safe zones" (good online behaviour)
- "Danger zones" (like clicking unknown links)
- Question cards with multiple-choice questions

ART & CRAFT

A) Bottle Art -

Transform an ordinary bottle into a unique piece of art by observing its shape and texture, using acrylic colours and mould it/air dry clay or with jute rope.

B) Make 5 drawings

· 2 Landscape (any medium of colours)

· Still life (any medium)

· Caricatures (Pencil colours)

· Animal drawing (Black pen)

You've completed your Holiday Homework!

We are so proud of your efforts.
Keep exploring, asking questions, and having fun!

Reflect & Share:
What was something new you learned during the break?

We hope your holiday homework kept your curiosity alive and your brain active!
We can't wait to see you back, full of ideas and energy.

"Education is the most powerful weapon which you can use to change the world."
– Nelson Mandela