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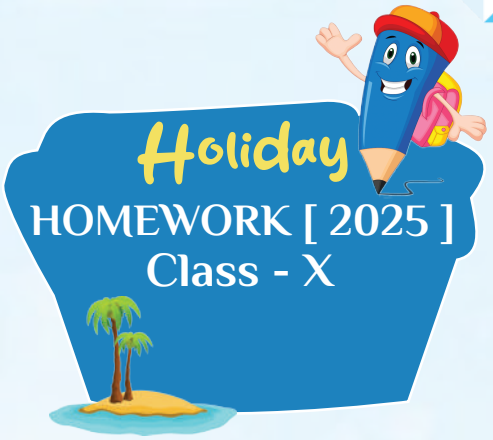

SUBJECT	
English	**1. Project:** Ch: Nelson Mandela: Students will collect the video of Mandela's original speech at the inauguration ceremony which was held on 10th May, 1994 and generate a QR code of the video. They will write the speech on A4 sheet paper and attach the QR code of the video to the speech. **2. Models: Any one:** a. Ch: A Tiger in the Zoo: Students will present the differences between a caged tiger and a jungle tiger through model and write down feelings and emotions of both the tigers. b. Ch: Dust of Snow: Hemlock Tree, Crow & Snow. Along with making a model students will also write down the magical power of nature which transformed the poet from sadness to happiness.
Hindi	नोट – सभी कार्य स्क्रैब बुक में करना है। 1 निम्नलिखित बिन्दुओं के आधार अरुणाचल प्रदेश राज्य की सांस्कृतिक, भगौलिक, वहाँ का खान-पान व वेश भूषा का चित्र सहित एक परियोजना तैयार कीजिए। विषयसूची , प्रस्तावना , प्रमाण पत्र 2 पाठ बड़े भाई साहब डायरी का एक पन्ना हरिहर काका कहानी को ध्यान पूर्वक पढ़कर उनमें आए मुहावरे छांटकर उनका अर्थ लिखिए। 3'हरिहर काका' कहानी को पढ़कर पाठ का सार चित्र सहित लिखिए। 4 बड़े भाई साहब पाठ में से दो सरल, दो संयुक्त और दो मिश्रित वाक्य छांटकर लिखिए। 5 निम्नलिखित समस्त पदों का विग्रह कर समास का नाम बताइए - समास विग्रह भेद यथामति प्रतिदिन ग्रंथकर चक्रधर दाल चावल गिरिधर आमरण पूजा घर यथा समय नवगीत 6. शैंपू बनाने वाली कंपनी के मालिक ने विज्ञापन बनाने को दिया है एक आकर्षक विज्ञापन तैयार कीजिए।'
French	1. Décrivez le système éducation de France en manière innovante 2. Apprenez la culture et civilization de Leçon 2 à 7
Mathematics	1. Make a project file of at least 15 pages on" Art integrated project based on " Arunachal Pradesh " which should include (a) Cover page (b) Index page (c) Acknowledgement (d) Certificate (e) Brief introduction of the topic

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	(f) Project content (f) Bibliography ***Worksheet will be given separately on class group.**
Science	**CHEMISTRY** **ACTIVITY1 -Do detailed research on the following:** **ROLL NO 1 TO 5**: Prepare a chart to show how displacement reaction is required in industrial processes. Also interconnect metal reactivity series to displacement reaction with at least 5-6 examples. **ROLL NO 6 TO11**: Research the properties of acids and bases: Prepare a short report or presentation highlighting the properties of acids and bases, including reaction with metals and effect on indicators. **Roll no 12 to 18:** Study the pH scale: Learn about the pH scale, its range from 0 to 14, and how it indicates the acidity or basicity of a solution. Create a diagrammatic representation of the pH scale. **Roll no 19 to 24**: Investigate acid-base indicators: Research different types of natural acid-base indicators. Explain their color changes in acidic and basic solutions. Explain how natural indicator differs with chemical indicators. **Roll no 25 to 30**: Explore the concept of corrosion: Research the process of corrosion in metals, its causes, prevention methods, and its impact on everyday objects. Conduct an experiment to demonstrate the effect of corrosion on metal surfaces. **Roll no 31 to 35**: Analyze the role of acids and bases in daily life: Identify examples of acids and bases used in everyday products like cleaning agents, food items, and medicines. Discuss their importance and impact on our lives. **LEARNING OUTCOMES: Research skills, critical thinking skills, presentation skills and drawing skills** **ACTIVITY 2: ASSIGNMENT** **Q1.**Define the following terms: a) Acid: b) Base: c) pH: d) Neutralization: Q2. Identify whether the following substances are acids or bases: a) Lemon juice b) slaked lime c) Vinegar d) Ammonia solution e) Milk of magnesia Q3. Balance the following chemical equations and identify their types: a) Hydrochloric acid + Sodium hydroxide → b) Sulfuric acid + Calcium hydroxide → c) Nitric acid + Potassium hydroxide → d) phosphoric acid + aluminium hydroxide → Q4.Write the chemical formula for the following acids and bases and classify them as acids and bases: a) Hydrochloric acid

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b) nitrous acid
c) acetic acid
d) oxalic acid
e) baryta water
f) Sulfuric acid
g) phosphoric acid
h) ammonium hydroxide

Q5. Explain the difference between a displacement and double displacement reaction, giving examples of each.

Q6. Explain the effects of corrosion with proper reaction in - a. copper, silver, iron.

Q7. Discuss the harmful effects of acid rain on the environment and suggest ways to prevent or mitigate its impact.

Q8. Sodium carbonate is a basic salt because it is a salt of

(a) strong acid and strong base

(b) weak acid and weak base

(c) strong acid and weak base

(d) weak acid and strong base.

Q9. Which of the following gives the correct increasing order of acidic strength

1. Water < Acetic acid < Hydrochloric acid
2. Water < Hydrochloric acid< Acetic acid
3. Acetic acid< Water < Hydrochloric acid
4. Hydrochloric acid< Water<Acetic acid

Q 10.For making a cake, baking powder is taken. If at home, your mother uses baking soda instead of baking powder in cake,

(a) how will it affect the taste of the cake and why?

(b) how can baking soda be converted into baking powder?

(c) what is the role of tartaric acid added to baking soda?

PLEASE NOTE:The presentation of the project (Activity 1) should be in a folder and assignment should be in Notebook and assignment is compulsory to all..

PHYSICS

EXPERIMENTAL ACTIVITY TASKS

Q1: Investigating Refraction through Transparent Materials

- **Activity**: Use a transparent glass slab or a clear water container and a pencil/straw.
- **Steps**:
  1. Place the pencil inside the water-filled glass.
  2. Observe from the side and draw how the pencil appears.

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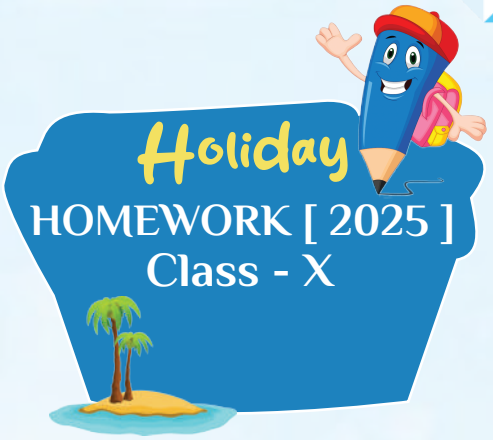

3. Explain why the pencil looks bent or broken using the concept of **refraction**.
4. Try the same with different liquids (e.g., oil, sugar solution) and note the differences.
5. Calculate the approximate **refractive index** if you know the angle of incidence and refraction using Snell's Law.

Q2: Making a Simple Periscope

- **Activity**: Construct a periscope using cardboard, plane mirrors, and tape.
- **Steps**:
  1. Design a periscope with mirrors placed at 45° angles.
  2. Use it to see over or around obstacles.
  3. Draw ray diagrams to explain how reflection helps in seeing objects.
- **Submission**: Include photos of your model, a labeled diagram, and a short explanation of how the periscope works using the **laws of reflection**.

OBSERVATION-BASED TASK

Q3: Study of Concave and Convex Mirrors/Lenses at Home

- **Task**: Use everyday items (like a **spoon**, **magnifying glass**, or **rearview mirror**) to observe the nature of images formed.
- **Subtasks**:
  1. Identify the object as a **concave/convex mirror** or **lens**.
  2. Shine a flashlight or observe an object (like a candle) and note:
     - Is the image **inverted/upright**?
     - Is it **magnified/reduced**?
     - Is it **real/virtual**?
  3. Record your observations in a table.

Submission: Create a table showing your findings along with labeled diagrams for at least 3 such observations.

WORKING MODEL

- Make a working model/experiment demonstrating the phenomenon associated with light (reflection/refraction/ scattering/ dispersion/electricity etc.)

WORKSHEET QUESTIONS

Answer the following questions neatly in your worksheet or fair notebook:

- State the laws of reflection and refraction with diagrams.
- Why does a coin placed in water appear to be raised? Explain with ray diagram.
- Define refractive index. What is its unit? What does a higher value mean?
- A ray of light strikes a plane mirror at an angle of 45°. What is the angle of reflection?
- A concave mirror forms an image 10 cm in front of it when the object is placed 15 cm in front. Find the focal length.
- A lens forms a virtual, erect and magnified image of an object. Identify the lens and state one use.
- Light enters from air to glass. State how:
  1. Speed of light changes.
  2. Direction of light changes.
- Why do stars appear to twinkle?

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- Why does a pencil appear bent in water? Support with diagram.
- A concave mirror has a focal length of 20 cm. At what distance from the mirror should a 4 cm tall object be placed so that it forms an image at a distance of 30 cm from the mirror? Also calculate the size of the image formed.
- An object 4 cm in height, is placed at 15 cm in front of a concave mirror of focal length 10 cm. At what distance from the mirror should a screen be placed to obtain a sharp image of the object. Calculate the height of the image.
- 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 20 cm towards the mirror? State reason and also draw ray diagram for the new position of the object to justify your answer.
- The absolute refractive indices of glass and water are 1.5 and 1.33 respectively. In which medium does light travel faster? Calculate the ratio of speeds of light in the two media.
- The refractive index of a medium V with respect to a medium 'y' is 2/3 and the refractive index of medium 'y' with respect to medium 'z' is 4/3. Find the refractive index of medium 'z with respect to medium V. If the speed of light in medium 'x' is 3×10^8 m s^{-1} , calculate the speed of light in medium 'y'.

What is meant by power of a lens? Define its S.I. unit. You have two lenses A and B of focal lengths + 10 and -10 cm respectively. State the nature and power of each lens. Which of the two lenses will form a virtual and magnified image of an object placed 8 cm from the lens? Draw a ray diagram to justify your answer.

BIOLOGY

I. **Project work** - Sustainable Arunachal: A Harmony of Nature and Culture

Objective: To understand sustainable development practices in Arunachal Pradesh and represent them creatively throughout.

Key Concepts to Cover:
1. Definition of Sustainable Development
2. Natural resources of Arunachal Pradesh(forests, rivers, biodiversity)
3. Traditional knowledge and practices
4. Renewable energy initiatives
5. Eco - tourism
6. Organic farming
7. Waste management practices
8. Government and NGO efforts

II. Complete the worksheet in your note books.

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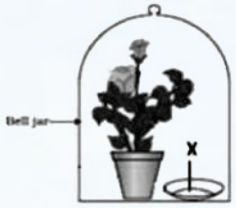
WORKSHEET, CH- LIFE PROCESSES (NUTRITION)

Choose the correct option:

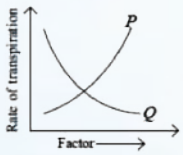
1. The given figure is a demonstration of an experiment to show that carbon dioxide is essential or photosynthesis. What is the substance 'X' kept in the watch glass?



a. Potassium hydroxide
b. Sodium bicarbonate
c. Sodium carbonate
d. Potassium sulphate

2. Given below are events of photosynthesis. Identify which is/are not true.
i. Absorption of light energy by chlorophyll.
Ii. Conversion of light energy to chemical energy and splitting of carbon dioxide to carbohydrates and oxygen.
Iii. Reduction of carbon dioxide into carbohydrate.
Iv. Conversion of chemical energy into radiant energy and splitting of water molecules into hydrogen and oxygen.
a. (i) and (ii) only
b. (ii) only
c. (ii) and (iii) only
d. (ii) and (iv) only

3. Refer to the given graph. Identify factors P and Q from the given graph and select the correct option regarding it.

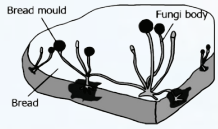


a. P could be temperature whereas Q could be light intensity.
b. P could be relative humidity whereas Q could be air movement.
c. P could be light intensity where as Q could be relative humidity.
d. P could be light intensity whereas Q could be temperature.

4. If pepsin is lacking in gastric juice, then which event in the stomach will be affected?
a. Digestion of starch will be affected?
b. Breaking of proteins into peptides.
c. Breaking of fats into glycerol and fatty acids.
d. Digestion of nucleic acid.

5. The trachea is prevented from collapsing by
a. Complete cartilaginous rings.
b. Incomplete cartilaginous rings.
c. Bony rings.
d. Chitinous rings.

6. The following image shows the bread moulds on bread:



How do these fungi obtain nutrition?

By eating the bread on which it is growing

(b) By using nutrients from the bread to prepare their own food

(c) By breaking down the nutrients of bread and then absorbing them

(d) By allowing other organisms to grow on the bread and then consuming them

7. A plant gets rid of excess water through transpiration. What is the method used by plants to get rid of solid waste products?

(a) Shortening of stem

(b) Dropping down fruits

(c) Shedding of yellow leaves

(d) Expansion of roots into the soil

8. How is food transported from the phloem to the tissues according to plants' needs?

(a) Food is transported along with the water in the plant's body

(b) Food is transported in only one direction, like water in the plant body through the xylem

(c) Food is transported from a region with a low concentration to a higher concentration

(d) Food is transported from the region where it is produced to other parts of the plants

ASSERTION AND REASON:

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.

1. Assertion (A) : Wall of the ventricles are thicker than the atria.
Reason (R) : This helps in preventing the back flow of the blood.
2. Assertion (A): In some animals like amphibians, the first step of gaseous exchange occurs through body surface,
Reason (R): Body surface or membrane of amphibians is thick in nature.

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3. Assertion (A) : In anaerobic respiration, one of the end product is alcohol.
Reason (R) : There is an incomplete breakdown of glucose.
4. Assertion (A): Pyruvate is a six-carbon molecule
Reason (R) : It is prepared in the cytoplasm as the first step to cellular respiration
5. Assertion (A): The inner lining of the small intestine has numerous finger-like projections called villi.
Reason (R) : The villi increase the surface area for absorption.

ANSWER THE FOLLOWING QUESTIONS:

Q1. State the role of following in the human digestive system.
I. Digestive enzymes
II. Hydrochloric acid
III. Villi
IV. Pepsin
V. Trypsin
VI. Lipase
VII. Mucus
Q2. Define the term parasite. Name one plant parasite and one animal parasite.Some organisms break down the food material outside the body and then absorb it. Give two examples.
Q3. State the form in which the following are stored:
a. Unused carbohydrates in plants.
b. Energy derived from food in humans
c. Describe the process of nutrition in the amoeba with the help of a diagram.
Q4. Draw a diagram of the human alimentary canal and label the following:
a. Part in which starch digestion initiated
b. Organ in which bile is stored
c. The gland that secretes digestive enzymes as well as hormones
d. Part of the alimentary canal where water is reabsorbed
e. Part of the gut where finger like projections are present to facilitate absorption of digested food.
Q5. Mention the raw materials required for photosynthesis.

Q6. Name the enzymes present in the pancreatic juice

Q7. Why is the small intestine in herbivorous longer than in carnivores?

Q8. What will happen if mucus is not secreted by the gastric glands?

Q9. Give reason:
a. Fine hair and mucus are present in the nasal passage.
b. Rings of the cartilage present in the throat.

Q10.Give reason:

(a) There is a difference in the rate of breathing between aquatic organisms and terrestrial organisms.

(b) Plants have low energy needs as compared to animals

Q11. In the process of respiration state the function of alveoli.
Q12. Draw a label diagram of human excretory system and label
(a) Form urine
(b) Is a long tube that collects urine from the kidney
(c) Stores urine until it is passed
Q13. Explain how translocation of materials in phloem tissue in plants is achieved by utilizing energy.
Q14. (a) Define excretion.

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	(b) Name the basic filtration unit present in the kidney. Q15. How does water enter continuously into the xylem? Q16. Write to advantages of transpiration in plants. Q17. What happens when the system of blood vessel develops a leak. Q18. How are fats digested in our bodies? Where does this process take place? Q19. What are the strategies of plants to get rid of their wastes? **CASE STUDY BASED QUESTINS:** The partially digested food coming from the stomach of a person enters a long and narrow organ A in his body. The organ A receives the secretions of two glands: liver and pancreas. Liver secretes a greenish-yellow liquid B. Pancreas secretes pancreatic juice which contains two digestive enzymes C and D. The intestinal juice completes the process of digestion of food. The inner wall of organ A has millions of tiny finger-like projections E which help in the rapid absorption of digested food into blood stream. The undigested part of food then passes into wider tube F which absorbs most of the water from undigested food. The last part of tube F called G stores this undigested food (or waste) for some time. The undigested food is then passed out though opening H as faeces in the process known as I. a. Enlist the site of synthesis and storage of liquid B. b. What are the digestive enzymes C and D? c. Why is organ A in herbivores longer than in carnivores? OR c. Name (i) tube F, (ii) part G, (iii) opening H and (iv) process I.
Social Science	**HISTORY** (Mark the following on outline political map of India) Chapter – 2, Nationalism in India – (1918 – 1930) for Locating and Labelling /Identification. 1.Indian National Congress Sessions: a) Calcutta (Sep.1920) b) Nagpur (Dec.1920) c) Madras (1927) 2. Important Centers of Indian National Movement a) Champaran (Bihar)-Movement of Indigo Planters b) Kheda (Gujarat)- Peasant Satyagraha c) Ahmedabad (Gujarat)- Cotton Mill Workers Satyagraha d) Amritsar (Punjab)- Jallianwala Bagh Incident e) Chauri Chaura (U.P.)-Calling off the Non-Cooperation Movement f) Dandi (Gujarat)- Civil Disobedience Movement. **POLITICAL SCIENCE** Create a poster on either of the following themes: 1. "Unity in Diversity through Federalism" 2. "Power Sharing: The Heartbeat of Democracy" Use relevant slogans, pictures, and quotes. You may use any art material. Prepare the syllabus covered so far.

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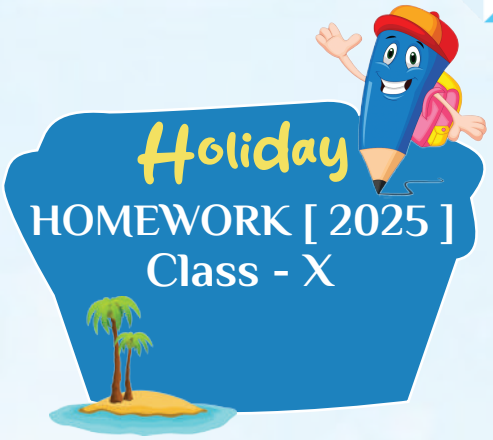

GEOGRAPHY

	Manufacturing Industries	• Manufacturing Industries (Locating and labeling only) • Cotton textile Industries: a. Mumbai, b. Indore, c. Surat, d. Kanpur, e. Coimbatore • Iron and Steel Plants: a. Durgapur, b. Bokaro, c. Jamshedpur, d. Bhilai, e. Vijayanagar, f. Salem • Software technology Parks: a. Noida, b. Gandhi-nagar, c. Mumbai, d. Pune, e. Hyderabad, f. Bengaluru, g. Chennai,h. Thiruvananthapuram
	Lifelines of National Economy	Locating and Labeling **a. Major Sea Ports** • Kandla • Mumbai • Marmagao • New Mangalore • Kochi • Tuticorin • Chennai • Visakhapatnam • Paradip • Haldia **b. International Airports** • Amritsar (Raja Sansi-Sri Guru Ram Das ji) • Delhi (Indira Gandhi) • Mumbai (Chhatrapati Shivaji) • Chennai (Meenambakkam) • Kolkata (Netaji Subhash Chandra Bose) • Hyderabad (Rajiv Gandhi)

ECONOMICS

Prepare a project report on:

1. Social Issues (X A and XD)
2. Consumer Awareness (XB and XE)
3. Sustainable Development (X C and XF)

GUIDELINES FOR PROJECT

1. Cover Page
   - Include the following details:
   - Title of the project (e.g, SUSTAINABLE DEVELOPMENT)
   - Your name
   - Roll number
   - Class and section
   - School name
   - Academic year
   - Subject teacher's name
2. Index / Table of Contents
   - List all major sections with page numbers
3. Acknowledgement

   A brief paragraph thanking those who helped (teacher, parents, etc.)
   - 4. Introduction
   - Explain what your project is about
   - Main Content (Body of the Project)
   - This is the core part and may include:
   - Subheadings and sections
   - Use of diagrams, charts, pictures (from website/newspapers/ magazine)
   - 5. Conclusion
   - Summarize the entire project

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	6. Bibliography • List sources of your information (books, websites, newspaper articles, etc.)
Artificial Intelligence	1. Complete the practical file questions and submit the hardcopy of the file. 2. As a part of the Field Visit Students can participate **in any of the following** and submit the certificate of completion. This activity carries 10 marks of the final board practical exam. a. AI for Youth Bootcamp conducted by CBSE (Registration link, date and details are shared with the attached pdf) b. AI Fests/ Exhibition c. Participation in any AI training sessions (Can take any free available online trainings and submit a report of the learnings) d. Virtual tours of companies using AI to get acquainted with real-life usage (Have to submit a report/presentation of the things understood in the tour)