ENGLISH

1. Literature to Life – Voice Your Concern

You are **Ananya/Anant**, a student of Class X at Defence Public School, New Delhi. A lesson from your English textbook inspired you to think deeply about a social issue that still exists around us.

Write a **Letter to the Editor** (120–150 words) on **ONE** of the following themes:

- *Nelson Mandela: Long Walk to Freedom* → Equality, justice, and responsible citizenship
- *A Letter to God* → Climate change and challenges faced by farmers
- *Amanda!* → Mental health and emotional pressure on teenagers
- *The Sermon at Benares* → Materialism vs inner peace in modern life

Creative Extension:

Add:

- a suitable newspaper headline,
- one meaningful quote/slogan, and
- a 2-line public awareness message.

2. Poetry Reimagined – Beyond the Textbook

Choose **any TWO poems** from *First Flight*.

Part A – Creative Transformation

Transform each poem into **ONE** of the following:

- modern-day social media conversation
- short monologue
- comic-strip script

(Approx. 100 words)

Part B – Visual Poetic Device Collage

Create a collage showing poetic devices with examples from the poem:

- imagery
- metaphor
- alliteration
- symbolism
- repetition
- personification

Part C – Mood Board Challenge

Design a mini mood board using:

- colours,
- symbols,
- sketches,
- song recommendations, or photographs to represent the emotional tone of the poem.

3. Incredible India – Creative Travel Campaign

Design a **digital campaign** based on one destination from *Glimpses of India (*on A4 sheet)

- Goa
- Coorg
- Assam

Include:

- catchy title and slogan
- famous attractions
- culture and cuisine
- festivals and traditions
- travel tips and estimated budget
- eco-friendly tourism suggestions

4. Mystery & Investigation Task

Imagine you are a detective, investigating one incident from the textbook.

Choose ONE:

- disappearance of the necklace (*The Necklace*)
- Griffin's strange behaviour (*Footprints Without Feet*)

Create:

- suspect profiles
- clues and evidence
- witness statements
- final conclusion report

Present it creatively as a case file/newspaper investigation.

5. CBSE Reading Challenge – Think Beyond the Chapter

Read any ONE newspaper article/editorial related to:

- education,
- environment,
- women empowerment,
- mental health, or
- technology.

Then connect it with any chapter from your English textbook and write:

- chapter name,
- similarities with real life,
- your opinion, and
- one lesson students should learn.

(100 words)

Presentation Guidelines

- Maintain neatness and creativity.
- Use colours, sketches, borders, magazine cuttings, or digital tools where appropriate.
- Avoid copying directly from the internet. Original ideas will be appreciated.
- Projects may be handwritten or digitally designed unless specified otherwise.

HINDI

हिंदी

परियोजना कार्य (कक्षा - X)

परियोजना– 1 : लोक साहित्य और लोकगीत

राजस्थान, पंजाब एवं हरियाणा की लोक संस्कृति के बारे में संक्षिप्त जानकारी देते हुए अपने क्षेत्र के 1-2 लोकगीत, लोककथाओं का संकलन कीजिए तथा बताइए कि लोक साहित्य हमारी संस्कृति और परंपराओं को संरक्षित रखने में किस प्रकार सहायक है।

परियोजना–2 : मुहावरे और लोकोक्तियाँ

हिंदी भाषा के 10 प्रमुख मुहावरों एवं लोकोक्तियों का अर्थ सहित संकलन कीजिए तथा उनका प्रयोग छोटे संवादों, चित्रों या दैनिक जीवन की परिस्थितियों के माध्यम से स्पष्ट कीजिए।

MATHS

Lab Manual Activity (To be done in lab manual)
Activity No. 1 Linear Equation Activity No. 23 Probability

➢ Workout (page no. 101 to 107) Questions related to PT-1 chapters to be done in manual only)

➢ Worksheet (To be done in mathematics notebook) i) (Answer in one word or one sentence)

1. Find the HCF of 48 and 180 using prime factorisation.
2. Write the degree of the polynomial $6x^3-4x^2+7x-56x^3$
3. Write the standard form of a linear equation in two variables.
4. What is the probability of getting a head when a coin is tossed once?
5. Find the distance of the point (3,4) from the origin. ii) (Answer in 2-3 steps)
6. Show that $2\sqrt{2}$ is an irrational number.
7. Find the value of p for which the polynomial $x^2 - px + 8$ is exactly divisible by $(x - 2)$.
8. Find three solutions of the equations i) $2x+3y=12$, ii) $2x + 3y = 12$
9. Find a relation between x and y such that the point P(x, y) is equidistant from the points A (2, 5) and B (-3, 7).

10. A card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting a i) red card ii) A face card iii) Not a black king iii) (Answer in detail with proper steps and justification)
11. Find the zeroes of the polynomial x2−5x+6 and verify the relationship between the zeroes and the coefficients.
12. Solve the pair of linear equations: (i) 3x + 2y = 5 ; 2x – 3y = 7 (ii) 2x – 3y = 8 ; 4x – 6y = 9
13. Express each number as a product of its prime factors: (i) 140 (ii) 156 (iii) 3825 (iv) 5005 (v) 7429
14. Find the coordinates of the points of trisection (i.e., points dividing into three equal parts) of the line segment joining the points A (2, – 2) and B (– 7, 4).
15. A fraction becomes 9/11 if 2 is added to both the numerator and the denominator. If, 3 is added to both the numerator and the denominator it becomes 5/6. Find the fraction.

16. A bag contains 5 red balls, 7 blue balls, and 3 green balls. One ball is drawn at random. Find the probability of drawing: a) a red ball b) a blue or green ball
17. Find the coordinates of the point which divides the line segment joining the points A(2,−3) and B(4,1) in the ratio 3:1.
18. Represent the equation 3x+4y=12 graphically.
19. If the square of the difference of the zeros of the quadratic polynomial) (2 x 4 px 5+ + =f x is equal to 144 , find the value of p
20. Show that √5 is an irrational number.

Social Science

Student are required to make a project on the topic “consumer Rights And Awareness” It will have following Sub topics : .

1. Introduction ---- Who is a consumer?
2. Duties of a consumer
3. Causes of consumer exploitation
4. Consumer protection Act 1986
5. . Four main consumer rights
6. Bibliography
7. Poster on creating awareness among the consumer
   Related pictures with every sub topic

8 Students will be marked on the following parameters:
a) Content accuracy, originality and analysis
b) Presentation and creativity
c) Viva Voce marks

BIOLOGY

- **Activities (To be done in science lab manual)**

i) Preparing temporary mounts of a leaf peel to show stomata.

ii) Experimentally show that carbon dioxide is given out during respiration.

- **Worksheet (Biology)**

Q1. Which of the following is the correct equation for the summary of photosynthesis

a) $6CO_2 + 12H_2O \longrightarrow C_6H_{12}O_6 + 6O_2 + 6H_2O$

b) $6CO_2 + H_2O + \text{sunlight} \longrightarrow C_6H_{12}O_6 + O_2 + 6H_2O$

c) $6CO_2 + 12H_2O + \text{chlorophyll} + \text{sunlight} \longrightarrow C_6H_{12}O_6 + 6O_2 + 6H_2O$

d) $6CO_2 + 12H_2O$ chlorophyll+ sunlight $\longrightarrow C_6H_{12}O_6 + 6O_2 + 6H_2O$

Q2. Products of anaerobic respiration in muscles are

a) Lactic acid and energy

b) Lactic acid ,carbon dioxide and energy

c) Lactic acid ,water ,carbon dioxide and energy

d) Lactic acid , water , and energy

Q3. The main function of the urinary bladder is to

a) control the pressure of urine in the urinary bladder

b) take the urine from the kidney to the urinary bladder

c) filter blood and remove the urine

d) connect the parts of the excretory system

Q4. Assertion: aerobic respiration requires less energy as compared to anaerobic respiration .
Reason : mitochondria is the power house of the cell .

Q5. Assertion: human heart is four chambered .
Reason : vena cava is the only artery that supplies deoxygenated blood to the heart

Q6. Assertion: energy is required to carry on different life processes Reason : energy is obtained in the form of ATP in mitochondria

Q7.Explain double circulation of blood in human beings.

Q8.Explain the process of urine formation.

Q9.Mention the name and function of enzymes involved in the process of nuitrition in human beings.

Q10.Mention the different pathways of breakdown of glucose with the help of flow chart.

PHYSICS

1. Find the focal length of a convex mirror of radius of curvature 1m.
2. Focal length of a convex mirror is 50 cm. What is its radius of curvature?
3. Radius of curvature of a concave mirror is 25 cm. What is its focal length?
4. A concave mirror produces 10 cm long image of an object of height of 2cm. What is the magnification produced?
5. An object 1 cm high is held near a concave mirror of magnification 10. How tall will be the image?
6. An object 4 cm in size is placed at a distance of 25 cm from a concave mirror of focal length 15 cm. Find the position, nature and height of the image.

7. A converging mirror forms a real image of height 4 cm, of an object of height 1 cm placed 20 cm away from the mirror. Calculate the image distance. What is the focal length of the mirror?
8. A 4.5 cm needle is placed 12 cm away from a convex mirror of focal length 15 cm. Give the location of the image and the magnification. Describe what happens as the needle is moved farther from the mirror.
9. An arrow 2.5 cm high is placed at a distance of 25 cm from a diverging mirror of focal length 20 cm, Find the nature, position and size of the image formed.
10. The image formed by a convex mirror of focal length 20cm is a quarter of the object. What is the distance of the object from the mirror?
11. Find the size, nature and position of image formed by a concave mirror, when an object of size lcm is placed at a distance of 15cm. Given focal length of mirror is 10cm.
12. An object 2cm high is placed at a distance of 16cm from a concave mirror, which produces 3cm high inverted image. What is the focal length of the mirror? Also, find the position of the image.
13. An erect image 3 times the size of the object is obtained with a concave mirror of radius of curvature 36cm. What is the position of the object?
14. A 2.5cm candle is placed l2 cm away from a convex mirror of focal length 30cm. Give the location of the image and the magnification.
15. An object is placed in front of a concave mirror of focal length 20cm. The image formed is 3 times the size of the object. Calculate two possible distances of the object from the mirror.
16. The image formed by a convex mirror is virtual, erect and smaller in size. Illustrate with figure.
17. A concave mirror produces a real image 10mm tall, of an object 2.5mm tall placed at 5cm from the mirror. Calculate focal length of the mirror and the position of the image.
18. An object is placed at a large distance in front of a convex mirror of radius of curvature 40cm. How far is the image behind the mirror?
19. An object is placed 15cm from a convex mirror of radius of curvature 90cm. Calculate position of the image and its magnification.
20. The image formed by a convex mirror of focal length 30cm is a quarter of the object. What is the distance of the object from the mirror?
21. When an object is placed at a distance of 60cm from a convex mirror, the magnification produced is 1/2. Where should the object be place to get a magnification of 1/3?
22. An object is placed 18cm front of a mirror. If the image is formed at 4cm to the right of the mirror. Calculate its focal length. Is the mirror convex or concave? What is the nature of the image? What is the radius of curvature of the mirror?
23. A convex mirror used for rear view on an automobile has a radius of curvature of 3m. If a bus is located at 5m from this mirror, find the position, nature and magnification of the image.
24. An object 3cm high is held at a distance of 50cm from a diverging mirror of focal length 25cm. Find the nature, position and size of the image formed.
25. An converging mirror of focal length 20cm forms an image which is two times the size of the object. Calculate two possible distances of the object from the mirror.
26. The linear magnification of a convex mirror of focal length 15cm is 1/3. What is the distance of the object from the focus of the mirror?
27. The focal length of a convex mirror is 12.5 cm. How far is its centre of curvature (i) from the pole (ii) from the focus.

28. Find the focal length of a concave mirror that produces four times larger real image of an object held at 5cm from the mirror.
29. An object is held at 30cm in front of a convex mirror of focal length 15cm. At what distance from the convex mirror should a plane mirror be held so that images in the two images coincide with each other?
30. Draw any three ray diagrams to show how the size and nature of image of an object change when it move from centre of curvature of concave mirror towards the pole of the mirror.

CHEMISTRY

Worksheet

1. Which of the following is a chemical change?
   a) Melting of ice b) Boiling of water c) Rusting of iron d) Dissolving sugar in water
2. Which gas is released when zinc reacts with dilute hydrochloric acid?
   a) Oxygen b) Hydrogen c) Nitrogen d) Carbon dioxide

3. Magnesium burns in oxygen to form magnesium oxide. Give chemical reaction?
4. Iron reacts with copper sulphate solution. Give chemical reaction?

5. $CaO+H_2O \rightarrow Ca(OH)_2$. Name type of reaction?

6. $2AgBr \xrightarrow{\text{sunlight}} 2Ag + Br_2$. Name type of reaction?

7. What is rancidity? Mention two methods to prevent it.
8. Why are decomposition reactions called opposite of combination reactions?

9. Explain displacement reaction with one example and balanced equation.
10. Differentiate between oxidation and reduction with suitable examples.

ARTIFICIAL INTELLIGENCE

1. Write a Python program to check if a number entered by the user is even or odd.
2. Write a Python program to find the greatest among three numbers entered by the user.
3. Write a Python program to print the multiplication table of a number entered by the user.
4. Write a Python program to calculate the sum of all numbers from 1 to 100 using a loop
5. Write a Python program to check whether a number is positive, negative, or zero.
6. Write a Python program to print all even numbers between 1 and 50 using a loop.

SANSKRIT

निम्नलिखित विषयों में से किसी एक विषय पर संस्कृत में 12–15 पंक्तियों का संवाद लिखिए।

1.ग्रीष्मावकाशः

2.पर्यावरण संरक्षणम्

3.विद्यालयस्य वार्षिकोत्सवः

2.कोई भी 5 प्रेरणादायक संस्कृत श्लोक लिखकर उनके अर्थ एवं सीख लिखिए।

3. अपनी दैनिक दिनचर्या के संस्कृत में 15 वाक्यों में लिखिए।

FRENCH

File work

1)Write short note on any French writer and its work in French and paste picture related to it

2)Make a list of French Faux amis with their meanings

(Ex assister , raisin ,coin , chair, chance , rester , stage ,quitter etc)

3) Make a pictorial dictionary with 10-15 words (verbs , nouns , adjectives etc)