



**SIDHESHWAR**  
PUBLIC SCHOOL  
*Learning Breeds Courtesy*

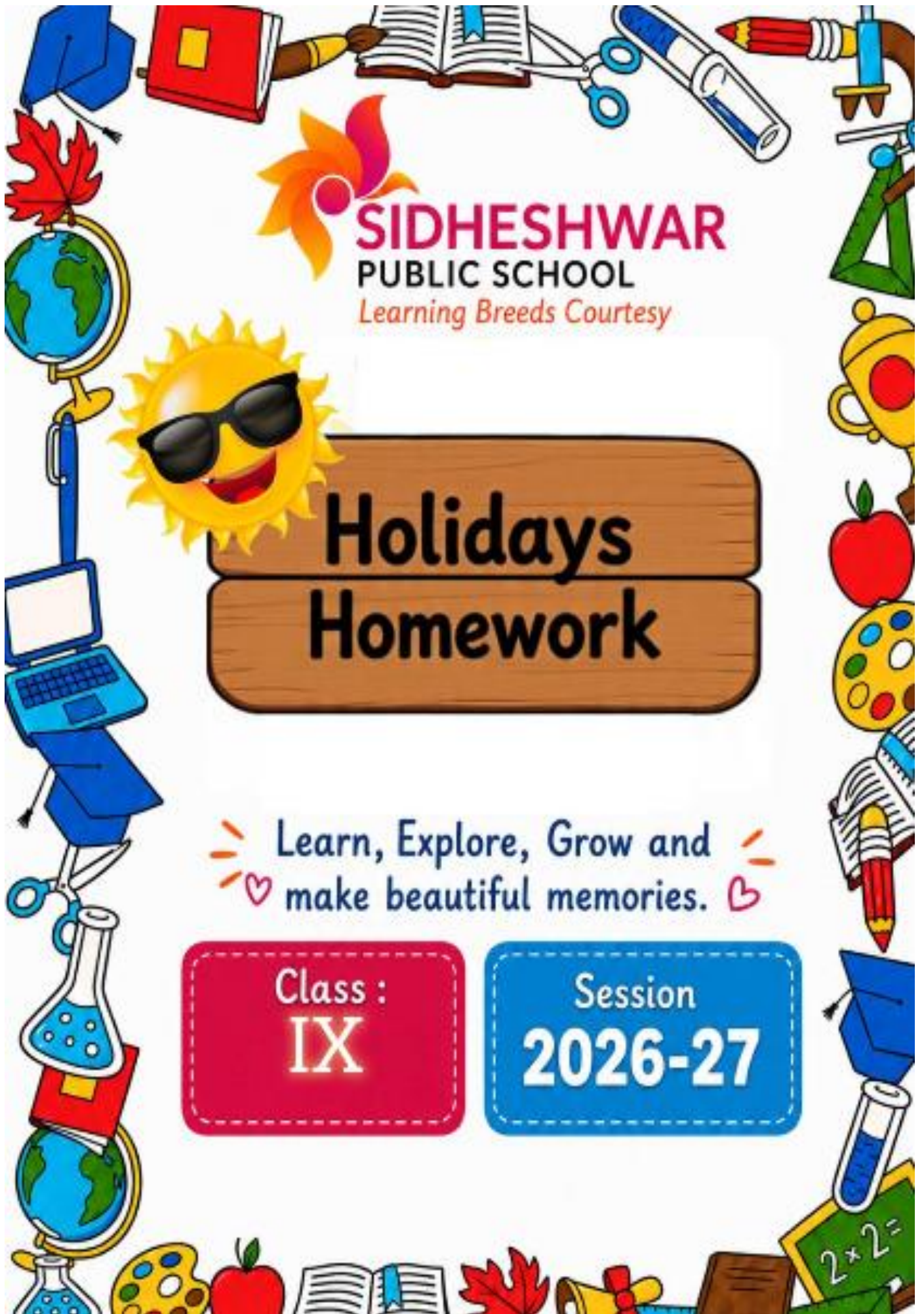


# Holidays Homework

Learn, Explore, Grow and  
make beautiful memories.

Class :  
**IX**

Session  
**2026-27**



# **ENGLISH**

## **1. Creative / Working Activity**

“Kaveri Literature Gallery”

Prepare a creative presentation file or scrapbook on any two prose chapters and one poem from your Kaveri English book.

Include:

Character sketches with illustrations

Important lines/quotes from the lessons

Theme and moral values

One creative activity: Mini working model / popup scene / comic strip / role play script

Vocabulary bank: 10 new words with meanings and sentences

Your personal reflection on the lessons

Presentation Rules:

Use colourful sheets and creative borders.

Handwritten work should be neat and attractive.

Add pictures/drawings wherever possible.

## **2. Theoretical Based Work**

### **Section A – Reading & Literature**

1. What important lesson did you learn from your favourite chapter in Kaveri?
2. Describe any one inspiring character from the textbook.
3. How do poems help us understand emotions and nature better?
4. Write the theme of any one poem from the book.
5. Which chapter did you enjoy the most and why?

### **Section B – Reading Task**

Read any English storybook/article during the holidays and prepare:

Title

Author

Summary (80–100 words)

Moral/Message of the story

Do all the work neatly and submit it in a well-organised file.  
Holiday homework will be assessed.

## हिंदी

**प्रश्न 1. नीचे दिए गए विषयों पर अनुच्छेद लिखिए।**

### **स्वच्छता का महत्व**

संकेत: स्वास्थ्य, साफ वातावरण, बीमारियों से बचाव, अच्छी आदत

### **समय का महत्व**

संकेत: समय अमूल्य, समय का सदुपयोग, सफलता, आलस्य से हानि

**प्रश्न 2. नीचे दिए गए विषय पर अनौपचारिक पत्र लिखिए।**

अपने मित्र को जीवन में वृक्षों का महत्व बताते हुए वृक्षारोपण के लिए प्रेरित करते हुए एक पत्र लिखिए।

**प्रश्न 3. नीचे दिए गए विषय पर संवाद लिखिए।**

अपने क्षेत्र में लगे हुए पुस्तक मेले के बारे में बात करते हुए दो मित्रों के बीच संवाद लिखिए।

**प्रश्न 4. नीचे दिए गए चित्रों को कॉपी में चिपकाकर उनका चित्र वर्णन कीजिए। (वर्तमान काल में)**



प्रश्न 5. दिए गए शब्दों में से उपसर्ग और मूल शब्द छाँट कर लिखिए।

दुर्दशा

संवाद

निर्दोष

अपमान

अधपका

प्रतिध्वनि

विशेष

आमरण

प्रकृति

सहयोग

प्रश्न 6. दिए गए शब्दों में से मूल शब्द और प्रत्यय छाँट कर लिखिए।

आकर्षित

झगड़ालू

सजावट

पदाकू

लिखाई

सुनार

बचपन

गरीबी

पंडिताइन

ममेरा

प्रश्न 7. दिए गए निपात शब्दों से दो- दो वाक्य बनाइए।

ही

भी

तो

तक

मात्र

केवल

नोट:-

\*अनुच्छेद को अपनी उत्तर पुस्तिका (Fair notebook)में लिखें।

\*शेष कार्य A4 सीट पर सुंदर व आकर्षक तरीके से करें।

\*कक्षा में कराया गया सभी कार्य याद करें।

### Sanskrit

1. संधि संधिविच्छेदम् एवं वा कुरुत

1. तथापि = \_\_\_\_\_

2. लोकेषणा = \_\_\_\_\_

3. परमेश्वरः = \_\_\_\_\_

4. स्वाहा = \_\_\_\_\_

5. महोत्साहः = \_\_\_\_\_

6. मेघावृतं = \_\_\_\_\_

7. अध्ययनार्थम् = \_\_\_\_\_

8 इत्युक्तः = \_\_\_\_\_

9 श्रद्धार्थं = \_\_\_\_\_ . 10शतान्यपि = \_\_\_\_\_

11 फलोद्गमेः = \_\_\_\_\_

12 एवैव = \_\_\_\_\_

13.नागतम् = \_\_\_\_\_

14 स्वागतम् = \_\_\_\_\_

15 वनौषधीनाम् = \_\_\_\_\_

16 पुस्तकालये = \_\_\_\_\_

17 वृत्त्यादिषु = \_\_\_\_\_

18 बौधायनाचार्येण = \_\_\_\_\_

19 यात्विति = \_\_\_\_\_

20 खल्वागच्छामि = \_\_\_\_\_

2. शब्दरूपैः पुरयत

1. अस्मिन् कक्षे चतस्रः \_\_\_\_\_ सन्ति।(बालक)

2. मम \_\_\_\_\_ कार्यालयः उदयपुरनगरे अस्ति।(पितृव्य)

3. \_\_\_\_\_ दुग्धं न रोचते।(राम)

4. सः बालकः \_\_\_\_\_ सह एव निवसति।(रमा)

5. \_\_\_\_\_ विना जीवनं निष्फलं वर्तते।(विद्या)

6. \_\_\_\_\_ शोभते जीवनं न तु सौन्दर्येण।(विद्या)

7. आज्ञा \_\_\_\_\_ हि अविचारणीया।(गुरु)

8. \_\_\_\_\_ पठनम् पुण्यम् भवति।(शास्त्र)

9. नदीषु ..... श्रेष्ठतमा उच्यते।(गंगा)

10. वृक्षेषु \_\_\_\_\_ शोभन्ते।(फल)

11. ....गीतानि गयन्ति(छात्रा) ,

12. माता.....कुद्ध्यति(पुत्र)

13. बालकः ..... पश्यति (वानर)

14. ....जलम् नीलवर्णम् भवति (यमुना)

15. सः.....कार्यालयम् गच्छति (बसयान)

3. उचित संख्यावाची शब्द चिनुत लिखत

1.सारे \_\_\_\_\_ (30) दिनानि भवन्ति।

(क) त्रिशत

(ख) त्रिशतानि

(ग) त्रिशत्

(घ) त्रिशतः

2.तत्र \_\_\_\_\_ (19) कदलीफलानि सन्ति।

(क) नवदशानि

(ख) नवदश

(ग) नवदशम्

(घ) नवदशाः

3. राजपथे \_\_\_\_\_ (3) वाहनानि सन्ति।

(क) त्रयः

(ख) तिस्रः

(ग) त्रीणि

(घ) त्रीन्

4 एकस्मिन् तडागे \_\_\_\_\_ (4) मत्स्याः आसन्।

(क) चतुः

(ख) चयः

(ग) चत्वारः

(घ) चत्वारि

5 \_\_\_\_\_ (1) व्याघः तत्र आगतवान्।

(क) एका

(ख) एकः

(ग) एकम्

(घ) एकस्य

6 श्वः अस्माकं \_\_\_\_\_ (3) भगिन्यः आगमिष्यन्ति।

(क) त्रयः

(ख) तिस्रः

(ग) त्रीणि

(घ) त्रयम्

7 गृहे \_\_\_\_\_ (32) जनाः भवन्ति।

(क) द्वात्रिंशत्

(ख) द्वात्रिंशति

(ग) द्वात्रिंशत्

(घ) द्वात्रिंशते

8 अश्वस्य \_\_\_\_\_ (4) पादाः भवन्ति।

(क) चतः

(ख) चत्वारः

(ग) चत्वारान्

(घ) चतुर्णाम्

9 \_\_\_\_\_ (1) नर्तकी रम्यं नृत्यति।

(क) एकम्

(ख) एकः

(ग) एका

(घ) एकस्मिन्

10 हस्तौ \_\_\_\_\_ (2) स्तः।

(क) द्वौ

(ख) द्वे

(ग) द्वाभ्याम्

(घ) द्वौ:

11 गीतायाम् \_\_\_\_\_ (18) अध्यायाः सन्ति।

(क) अष्टादशः

(ख) अष्टादश

(ग) अष्टदश

(घ) अष्टदशाः

12 संस्कृते \_\_\_\_\_ (16) वर्णाः भवन्ति।

(क) षोडशः

(ख) षोडश

(ग) षोडशा

(घ) षोडशी

13 जननीगृहे \_\_\_\_\_ (31) दिवसा भवन्ति।

(क) एकत्रिंशत्

(ख) एकत्रिंशम्

(ग) एकत्रिंशति

(घ) एकत्रिंशतिः

14 महोदयस्य \_\_\_\_\_ (3) नेत्राणि सन्ति।

(क) त्रीणि

(ख) त्रयः

(ग) तिस्रः

(घ) त्रीन्

15 वृक्षस्योपरि ----- (12) शुकाः सन्ति।

(क) द्वादशः

(ख) द्वादश

(ग) द्वादशा

(घ) द्वादशम्

4 धातुरूपै पुरयत

1 एषा भोजनं ..... ।

(क) पचति

(ख) पचतः

(ग) पचन्ति

(घ) पचथ

2 बालिका प्रातःकाले विद्यालयं ..... ।

(क) गच्छसि

(ख) गच्छति

(ग) गच्छति

(घ) गच्छामि

3. वयमिदानीं रामायणस्य रचनाम् ..... ।

(क) अकुर्वत

(ख) अकुर्वाम

(ग) अकुर्वन्

(घ) अकुर्वम्

4 देशभक्ताः .....

(क) आसीत्

(ख) आसीः

(ग) आसम्

(घ) आसन्

5 भवन्तः कस्याः लेखन्या ..... ?

(क) पठसि

(ख) पठन्ति

(ग) पठः

(घ) पठति

6. रावणः सीतायाः .....

(क) अहरत्

(ख) अहरताम्

(ग) अहरः

(घ) अहरत्

7.शवः देवदत्तस्य उपनयनं .....

(क) भविष्यत्

(ख) भविष्यन्ति

(ग) भविष्यतः

(घ) भविष्यति

8अद्य मम जन्मदिवसः अस्ति। मम पितामही उपहारान् .....

(क) आनयामि

(ख) आनयथ

(ग) आनयति

(घ) आनयामः

9.युवाम् इदं कार्यं कर्तुं ..... ।

(क) शक्नुथः

(ख) शक्नुवन्ति

(ग) शक्नुथः

(घ) शक्नुमि

10.माता शिशोः समीपम् आगच्छतु। शिशुः मातरं दृष्ट्वा .....

(क) अहसताम्

(ख) अहसतम्

(ग) अहसम्

(घ) अहसत्

11वयं पाठशालां ..... ।

(क) पठावः

(ख) पठामः

(ग) वः

(घ) पठसि

12वयं सैनिकान् नमस्कारम् ..... ।

(क) करिष्यन्ति

(ख) कुरुः

(ग) करिष्यामि

(घ) कुरुतः

13 ययं गीता पुस्तकं कार्यालयात् ..... ।

(क) आनयत्

(ख) आनयाम

(ग) आनय

(घ) आनयत

14अद्य विद्यालये अवकाशं ..... ।

(क) लिखति

(ख) पठिष्यति

(ग) पठति

(घ) अस्ति

15अहं श्वः सञ्चालयालयं ..... ।

(क) गमिष्यति

(ख) गमिष्यसि

(ग) गमिष्यामः

(घ) गमिष्यामि

5.समय लेखनम्

अधोलिखितवाक्येषु उदाहरणानुसारं समयबोधकेषु पदेषु रिक्तस्थानानि पूरयत-\*\*

\*\*उदाहरणम्-\*\*

द्वितीयरेलवाहनं ..... (10:15) वादने जयपुरं प्राप्नोति।

द्वितीयरेलवाहनं \*\*सपाददशवादने\*\* जयपुरं प्राप्नोति।

(i) पुरुषोत्तम-एक्सप्रेस इति रेलयानं ..... (9:30) वादने पुरीतः प्रस्थानं करोति।

(ii) चेतक-एक्सप्रेस इति रेलयानं ..... (4:45) वादने दिल्लीम् आगच्छति।

(iii) हावड़ा-एक्सप्रेस ..... (11:00) वादने हावड़ास्थानकं प्राप्नोति।

(iv) रेलयानमेकं ..... (8:15) उत्तराञ्चलं प्रति गच्छति।

(v)माता प्रातः ..... (5:00) वादने उत्तिष्ठति

(vi) राहुलः प्रातःभ्रमणाय ..... (6:15) वादने उद्यानं गच्छति।

(vii) मल्लिका ..... (7:30) वादने प्रातराशं करोति।

(viii) अनन्या ..... (5:45) वादने क्रीडति।

(ix) अहम्... (9:30) ..... वादने गणितम् पठामि

(x) सर्वे ..... (10:00) वादने शयनं कुर्वन्ति।

. 1. चित्रं कृत्वा लेखनम् (Draw and Write)

2 पोस्टर-निर्माणम् (Poster Making)

Make posters with Sanskrit slogans

Topics:

स्वच्छता

वृक्षारोपणम्

जलसंरक्षणम्

## MATHS

**TOPIC COVERED:**

**Orienting Yourself: The Use of Coordinates**

**Introduction to Linear Polynomials**

**The world of numbers**

**Instructions:**

Complete the work neatly in a separate colourful notebook/file. Use colour charts, diagrams, creative borders, and illustrations wherever possible.

## **PRESENTATION TIPS**

- **Use coloured pens/pencils for headings and important steps.**
- **Every activity should be neatly decorated.**
- **Prepare a beautiful cover page with your Name, Class, Roll No. & Subject.**
- **Try to make your work creative using charts, cuttings, mind maps, and real-life examples.**
- **Use graph sheets wherever required.**
- **Maintain neatness and creativity.**

### **Activity 1. Visual City Map (Orienting Yourself: The Use of Coordinates)**

#### **Task:**

Design a small “city map” on graph paper and label important places using coordinates.

#### **Instructions:**

Draw a 2D grid (Cartesian plane) and mark at least 10 locations such as school, home, park, hospital, sports ground, bus stop, etc.

Write the coordinates of each place and mention the quadrant (or axis) it lies in.

Choose any 3 points and calculate the distance between them using the distance formula.

Choose 2 points and find the midpoint of the line joining them.

### **Activity 2. “Math Café” Menu Project (Introduction to Linear Polynomials)**

#### **Task:**

Create a café or canteen menu where the cost of any item is given by a linear polynomial.

#### **Instructions:**

Invent a small café with 3–5 items (e.g., chips, juice, sandwich, samosa).

For each item, write a linear polynomial expression where the quantity is the variable and the cost is in rupees (for example, chips cost where is number of packets).

Make a table for each item with 3–5 different quantities and corresponding total cost.

Plot the cost vs quantity for one item on graph paper and explain what the slope and yintercept mean in the café context.

Add a small “discount” or “offer” situation (e.g., buy 3 get 1 free) and show how the polynomial changes.

### **Activity 3. “Number World Travelogue” (The World of Numbers)**

#### **Task:**

Prepare a short travelogue or “number diary” exploring different kinds of numbers.

#### **Instructions:**

Divide your project into 4 “countries” of numbers:

Natural and Whole Numbers

Integers

Rational Numbers

Irrational/Real Numbers

For each “country”, write 3–5 sentences describing its features and give 3–5 examples.

Insert at least one numberline diagram for rational and one for irrational numbers (e.g., mark or using a spiral or rightangle construction).

Add a small section: “Why are numbers important in my daily life?” (mention applications like shopping, distances, time, etc.).

#### **Activity 4:**

**Prepare any working Mathematical Model related to your syllabus.**

## Activity 5:

### (i) Assignment of chapter ORIENTING Yourself: The Use of Coordinates

1. Consider the points R (3, 0), A (0, -2), M (-5, -2) and P (-5, 2). If they are joined in the same order, predict:

(i) Two sides of RAMP that are perpendicular to each other.

(ii) One side of RAMP that is parallel to one of the axes.

(iii) Two points that are mirror images of each other in one axis. Which axis will this be?

2. Plot point Z (5, -6) on the Cartesian plane. Construct a right-angled triangle IZN and find the lengths of the three sides.

3. Are the points M (-3, -4), A (0, 0) and G (6, 8) on the same straight line? Suggest a method to check this without plotting and joining the points.

4. Use the connection you found to find the coordinates of B given that M (-7, 1) is the midpoint of A (3, -4) and B (x, y).

5. Let P, Q be points of trisection of AB, with P closer to A, and Q closer to B. Using your knowledge of how to find the coordinates of the midpoint of a segment, how would you find the coordinates of P and Q? Do this for the case when the points are A (4, 7) and B (16, -2).

6. The midpoints of the sides of triangle ABC are the points D, E, and F. Given that the coordinates of D, E, and F are (5, 1), (6, 5), and (0, 3), respectively, find the coordinates of A, B and C.

7. 16. Plot the points A (2, 1), B (-1, 2), C (-2, -1), and D (1, -2) in the coordinate plane. Is ABCD a square? Can you explain why? What is the area of this square?

### (ii) Assignment of chapter Introduction to Linear Polynomials

1. What is the constant term of the polynomial  $9x^3 + 5x^2 - 8x - 10$ ?

2. A learning platform charges a fixed monthly fee and an additional cost per digital learning module accessed. A student observes that when she accessed 10 modules, her bill was ₹400. When she accessed 14 modules, her bill was ₹500. If the monthly bill  $y$  depends on the number of modules accessed,  $x$ , according to the relation  $y = ax + b$ , find the values of  $a$  and  $b$ .

3. Suppose a plant has height 1.75 feet and it grows by 0.5 feet each month.

(i) Find the height after 7 months.

- (ii) Make a table of values for  $t$  varying from 0 to 10 months and show how the height,  $h$ , increases every month.
- (iii) Find an expression that relates  $h$  and  $t$ , and explain why it represents linear growth.
4. What are the coefficients of  $x^2$  and  $x^3$  in the polynomial  $x^4 - 3x^3 + 6x^2 - 2x + 7$ ?
5. A rally starts with 120 members. Each hour, 9 members drop out of the group. How many members will remain after 1, 2, 3, ... hours? Find a linear expression to represent the number of members at the end of the  $n^{\text{th}}$  hour.
6. Find the value of the linear polynomial  $5x - 3$  if:
- (i)  $x = 0$   
(ii)  $x = -1$   
(iii)  $x = 2$
7. Draw the graphs of the following sets of lines. In each case, reflect on the role of 'a' and 'b'.
- (i)  $y = 4x$ ,  $y = 2x$ ,  $y = x$   
(ii)  $y = -6x$ ,  $y = -3x$ ,  $y = -x$   
(iii)  $y = 5x$ ,  $y = -5x$   
(iv)  $y = 3x - 1$ ,  $y = 3x$ ,  $y = 3x + 1$
8. Write polynomials of degrees 1, 2 and 3.
9. A gym charges a fixed monthly fee and an additional cost per hour for using the badminton court. A student using the gym observed that when she used the badminton court for 10 hours, her bill was ₹800. When she used it for 15 hours, her bill was ₹1100. If the monthly bill  $y$  depends on the hours of the use of the badminton court,  $x$ , according to the relation  $y = ax + b$ , find the values of  $a$  and  $b$ .
10. A mobile phone is bought for ₹10,000. Its value decreases by ₹800 every year.
- (i) Find the value of the phone after 3 years.  
(ii) Make a table of values for  $t$  varying from 0 to 8 years and show how the value of the phone,  $v$ , depreciates with time.  
(iii) Find an expression that relates  $v$  and  $t$ , and explain why it represents linear decay.

### **(iii) Assignment of chapter The world of numbers**

1. Represent  $\sqrt{5}$  on the number line.

2. Is  $\sqrt{64}$  a rational number? Give reason.
3. Prove that  $\sqrt{2}$  is an irrational number.
4. Write the decimal expansion of:
  - a)  $\frac{7}{8}$
  - b)  $\frac{13}{20}$
  
5. Convert the following into rational numbers:
  - a) 0.25
  - b) 0.125
6. State whether the following are rational or irrational:
  - a)  $\sqrt{7}$
  - b) 0.1010010001...
  - c) 4.272727...
7. Find three irrational numbers between 2.1325 and 2.1326.
8. Write five rational numbers between  $\frac{1}{2}$  and  $\frac{3}{4}$ .
9. Find whether the following are irrational:
  - a)  $\sqrt{11}$
  - b)  $\sqrt{121}$
  - c)  $\pi$
10. Write the following in decimal form:
  - a)  $\frac{11}{16}$
  - b)  $\frac{7}{25}$

## **Science**

All the steps should be done on A4 - sized sheets. The work should be compiled neatly in a single folder.

### **Practical & Investigative:**

**Osmosis Experiment: Raisin Study:** Soak raisins in distilled water (hypotonic) and then in strong sugar solution (hypertonic). Record the change in size and volume, explaining the process of osmosis and plasmolysis.

**Potato Osmosis Cup:** Create potato cups to demonstrate osmosis by placing them in water with salt/sugar and observing the water level changes over 2 hours.

### **Creative Corner - Biology - (For Roll Number- 11-20)**

Topic: Plant cell, animal cell, cell organelles(any one)

Activity Type: Chart / Poster Making

Instructions:

- 1.Prepare a creative and informative chart or poster on any one of the above topics:
- 2.Use a chart paper (A3 or A2 size).

Include:

Attractive title

Neat diagrams

Short informative points

Use colours creatively.

Handwritten work only.

Mention your name, class, and roll number at the bottom.

### **Creative Corner – Chemistry - (For Roll Number- 21-30)**

All the steps should be done on A4 - sized sheets. The work should be compiled neatly in a single folder. A title page must be included, clearly mentioning "The Kitchen Chemist Investigatory Project" along with name, class, section and academic year.

This project involves conducting experiments in the kitchen, observing, and reporting.

**Activity:** Create a "Kitchen Lab Report" classifying 15 different household items (e.g., salt, sugar, turmeric, milk, air, tea, muddy water, brass, stainless steel, air) as homogeneous or heterogeneous mixtures, solutions, suspensions, or colloids.

**Separation Challenge:** Take a mixture of sand, salt, and water. Use filtration to separate the sand and evaporation to separate the salt from the water. Document the process with photographs.

**Deliverable:** A Scrapbook containing photos of the mixtures, classification charts, and observations of the separation techniques used.

### **Creative Corner - Physics - (For Roll Number 31 onwards)**

All the steps should be done on A4 - sized sheets. The work should be compiled neatly in a single folder. A title page must be included, clearly mentioning "Science Portfolio" along with name, class, section and academic year.

Activity 1: "Motion Tracker – Be a Motion Spy!"

Step 1: Be a Motion Spy

Over two days, observe your surroundings (home, park, market, etc.) and identify 5–8 real-life examples of motion.

Examples:

- A car driving straight down a road (rectilinear)
- A ceiling fan spinning (circular)
- A child on a swing (periodic)
- A butterfly flying in the garden (random)

Step 2: Log the Movement

For each observation, note:

- What is moving?
- Type of motion (rectilinear, circular, periodic, random)?
- Where did you observe it?
- Approximate speed (fast/slow)?
- What caused the motion? (push, pull, engine, gravity, etc.)

Step 3: Get Creative with Your Report

Choose one of the following formats:

- Secret Agent Report: Write a "Mission Brief" where you, as "Agent Newton," report each case of motion you track.
- Motion Comic Strip: Draw a comic with each type of motion shown as a character in action — e.g., "Captain Circular," "Speedy Straight," etc.
- Motion News: Prepare a "Motion in the City" news column with short reports for each observed motion (like weather updates).

**Below three assignments are mandatory for all the students.**

### **Assignment – Biology**

1. Why is the plasma membrane called a selectively permeable membrane?

2. Distinguish between Rough Endoplasmic Reticulum (RER) and Smooth Endoplasmic Reticulum (SER).
3. Draw a neat, labelled diagram of Animal **Cell** and a **Plant Cell**.
4. List three main differences between plant and animal cells.
5. Explain why the inner membrane of mitochondria is deeply folded.
6. Why do endocytosis are found in animals only?
7. Name the following organelles
  - a. Kitchen of the cell
  - b. Powerhouse of the cell
  - c. Suicidal bag of the cell
  - d. Packing and dispatching unit of cell
8. "Lysosomes are a kind of waste disposal system of a cell". Justify it.
9. Write difference between mitosis and meiosis.
10. What will happen to a cell when it is placed in
  - a. Hypertonic solution
  - b. Hypotonic solution
11. How do substances CO<sub>2</sub> and water move in and out of the cell?
12. Give reason for the following:
  - Bacteria are prokaryotic cells.
  - Mitochondria are also called semi-autonomous organelles.
13. What happens when dry apricots are left for some time in pure water and later transferred to sugar solutions?
14. Give structure and functions of Golgi apparatus.
15. Briefly explain the structure of chromosomes.

### **Assignment - Chemistry**

1. A common talcum powder contains 4% m/m zinc oxide, which act as an antiseptic. How much zinc oxide is present in 300g of the talcum powder?
2. Clouds are made up of tiny water droplets or ice crystals floating in the air. Based on what you know about solutions, suspensions and colloids, what type of mixture do you think clouds are and why?
3. State one similarity between camphor and dry ice upon heating.
4. What is an alloy composed of?

5. What is the basic principle behind the process of centrifugation?
6. Define a saturated solution?
7. Why is temperature strictly specified when defining the solubility of a substance?
8. What happens if a saturated solution of a solid in liquid is heated?
9. Describe a detailed activity using paper chromatography to definitely show that black sketch pen ink is not a single individual colour?
10. How exactly does the process of centrifugation help in separating microscopic particle from a liquid mixture?
11. Mention one critical application of this technique in the modern medical field.
12. Explain exactly what an emulsion is, providing an everyday example, and explain how emulsifying agents' function.
13. Why does a beam of light become visible when passing through a colloid?
14. What is the specific function of adding alum to muddy water?
15. Define the term concentration of a solution.
16. State one difference between a homogeneous and a heterogeneous mixture based on appearance.
17. Give one practical application of the simple distillation process.
18. A solution contains 25% salt by mass. If the total mass of solution is 400g, find the mass of salt and water in it.

## **Physics Assignment**

### **Section A: Conceptual Questions**

1. Differentiate between distance and displacement with examples.
2. Define velocity. How is it different from speed?
3. What is uniform acceleration and non-uniform acceleration?
4. What is retardation (deceleration)?
5. Explain the significance of (a) slope of distance-time graph (b) area under velocity-time graph.

### **Section B: Graph-Based Questions**

1. Draw a distance-time graph for (a) object at rest (b) object in uniform motion.
2. Draw a velocity-time graph for uniformly accelerated motion.
3. What does a straight-line graph parallel to time axis in velocity-time graph represent?

### **Section C: Numerical (Use equations of motion)**

1. A car starts from rest and accelerates at  $2 \text{ m/s}^2$  for 5 seconds. Find its final velocity.
2. A body moving with velocity  $10 \text{ m/s}$  accelerates uniformly at  $3 \text{ m/s}^2$  for 4 seconds. Calculate the final velocity.
3. A car starts from rest and travels with acceleration  $2 \text{ m/s}^2$ . Find the distance covered in 6 seconds.
4. A train moving at  $20 \text{ m/s}$  comes to rest with uniform retardation in 5 seconds. Find the acceleration.
5. A body moves with initial velocity  $5 \text{ m/s}$  and acceleration  $2 \text{ m/s}^2$ . Find (a) final velocity after 3 seconds (b) distance covered.
6. A vehicle moving with velocity  $15 \text{ m/s}$  is brought to rest with uniform deceleration of  $3 \text{ m/s}^2$ . Find the distance travelled before stopping.
7. A stone is thrown with velocity  $10 \text{ m/s}$  and acceleration is  $2 \text{ m/s}^2$ . Find the distance covered in 4 seconds.

## **SOCIAL SCIENCE**

### **Early Civilizations**

#### Option 1: 3D Miniature Model & Curator Guide

Task: Create a 3D model of a city-state (e.g., Ur in Mesopotamia or Harappa) using clay, cardboard, or recycled materials.

Creative Twist: Act as a curator and write a 2-page "Museum Guide" explaining the Ziggurat, farming techniques, and social structure represented in your model.

#### Option 2: "The Ancient Times" Newspaper

Task: Design a four-page newspaper from the perspective of an ancient reporter (e.g., in Sumer or along the Nile).

Content: Include headlines about the invention of the wheel, a feature article on irrigation techniques, a "Wanted" poster for a thief stealing grain, and interviews with a scribe or artisan.

#### Option 3: Diary of a Bronze Age Kid

Task: Create a 10-day diary entry book by aging paper (using tea staining).

Content: Detail a day in the life of a child witnessing the invention of writing (cuneiform), a visit to the marketplace, and farming on the banks of a river. Include sketches of tools.

#### Option 4: Digital Comic Strip Storyboard

Task: Use tools like StoryboardThat or Canva to create a digital comic strip explaining the transition from hunting-gathering to settlement.

Creative Twist: Include a bonus QR code linking to a 1-minute podcast recording discussing the "Top 5 Innovations" of the era.

### Guidelines

- Duration: Use the summer break to research and craft.
- Focus: Emphasize the impact of agriculture, the importance of rivers (Nile, Indus, Tigris-Euphrates), and early urbanization.

Roll no. 1 to 10 :3D Miniature Model & Curator Guide.

Roll no. 11 to 20 : "The Ancient Times" Newspaper.

Roll no. 21 to 30 :Diary of a Bronze Age Kid.

Roll no. 31 to 40 : Digital Comic Strip Storyboard.

## 1. Understanding democracy

### Short Questions:

What is democracy?

Name two features of democracy.

Why is voting important?

### Fill in the Blanks:

1. India is a \_\_\_\_\_ country.
2. Citizens above \_\_\_\_\_ years can vote.
3. Democracy promotes \_\_\_\_\_ among people.

### Long Questions:

- 1.Explain the importance of democracy in modern society.
- 2.Write five features of a democratic government.

### Map Activity:

Locate and label the democratic countries of Asia on a world map.

## 2. Beginning of Civilization

**Short Questions:**

- 1.What is civilization?
2. Name two ancient civilizations.
- 3.Why were rivers important?

**Fill in the Blanks:**

- 1.The Indus Valley Civilization developed near the \_\_\_\_\_ river.
- 2.Early humans lived in \_\_\_\_\_.
- 3.Farming helped people settle in \_\_\_\_\_ places.

**Long Questions:**

- 1.Describe the main features of the Indus Valley Civilization.
- 2.Explain how agriculture changed human life.

**Map Activity:**

Mark the Nile, Indus, and Tigris-Euphrates rivers on a map.

**3. Climate and Temperature****Short Questions:**

- 1.What is climate?
- 2.What is temperature?
- 3.Name one factor affecting climate.

**Fill in the Blanks:**

- 1.The hottest layer of the atmosphere is the \_\_\_\_\_.
- 2.Weather changes every \_\_\_\_\_.
- 3.Temperature is measured using a \_\_\_\_\_.

**Long Questions:**

- 1.Explain the difference between climate and weather.

2. Describe the factors affecting the climate of India.

**Map Activity:**

On the map of India, mark hot and cold climatic regions.

**Instructions**

- Complete the work neatly in your notebook or file.
- Use colors, charts, and maps wherever needed.
- Submit after summer vacation.