

# APEX PUBLIC SCHOOL

## SESSION 2026-2027 SUMMER HOLIDAYS HOMEWORK

### CLASS: IX

Dear Students, summer vacation is the time for a wealth of knowledge and a variety of activities. Here is a balanced set of assignments to keep your minds sharp and creative while you enjoy your break!

#### ❖ English Language & Literature



##### General Instructions:

- Submission and Presentation Rules (apply to all parts)
- Use A4 sheets or a single notebook as specified. Keep margins neat and use a ruler for lines and borders.
- Write your name, class, section, roll no., and task title at the top of each sheet.
- Number items and use headings (Task 1, Task 2, etc.).
- For images, paste printed pictures or draw lightly in pencil before inking/colouring.
- Check grammar and spelling. Cite any quotes or facts (write "Source: ..." at the bottom).

##### 1. Part A — Wall Display:

"From Setback to Success: Stories of Ordinary People Who Did the Extraordinary"

Instructions: Create a profile for any 4 personalities. Each profile should be neatly written on an A4 card (or sheet), include a small portrait (printed or sketched), and be displayed on the wall. Keep each profile short and easy to read (5–7 lines).

Choose four personalities (examples: Sudha Chandran, Arunima Sinha, Stephen Hawking, Srikanth Bolla).

For each person, write the following under clear subheadings:

The Hurdle: Describe the major challenge they faced.

The Turning Point: Explain how they decided to fight back or adapt.

The Triumph: List 2–3 key achievements.

A Quote: Add one inspiring line by them (write Source: ...).

Attach a small portrait next to each profile.

Make headings bold and use legible writing; each profile must fit on one A4 card.

##### 2. Part B — School Magazine:

Instructions: Choose either a poem, a personal essay, an article, story, etc. Submit one polished piece for school magazine typed and printed or neatly handwritten. Indicate your name, class, and section on the top.

**3. Part C — Holiday Homework Sheet:** "Money, Values, and Choices" Instructions: Complete the two tasks on one A4 page or in a single notebook sheet. Use headings for each task. Write neatly and correctly.

### Task 1 — Dialogue (Vitamin-M):

Imagine a conversation between Aarav (who believes happiness comes from buying the latest gadgets and luxury items) and Diya (who believes true contentment comes from experiences, relationships, and savings).

Write a realistic dialogue of 8–10 exchanges (an exchange = one speaker's turn).

Make sure both perspectives are presented logically and end the dialogue with a balanced conclusion about the true value of money.

### Task 2 — Mini Motivational Poster (Winds of Change / Believe in Yourself):

On the same sheet, design a small motivational poster for students to help handle exam stress or self-doubt.

Include: a catchy headline/slogan, three short actionable tips to build self-belief (one line each), and a simple sketch or decorative border.

Keep the layout bold and clean; use ink or colour to make the headline stand out.

## ❖ Mathematics



### Worksheet-1(The use of Coordinates)

1. Write the coordinates of the following points:

- Point A lies 4 units right of the origin and 3 units above the x-axis.
- Point B lies 5 units left of the origin and 2 units below the x-axis.

2. Plot the following points on a Cartesian plane:

$$(2,3), (-4,1), (-3,-2), (5,-4)$$

Also mention the quadrant in which each point lies also write abscissa and ordinates for the given points.

3. State whether the following statements are True or False:

- Every point on the x-axis has y-coordinate equal to 0.
- The origin lies in the first quadrant.
- A point  $(0, -5)$  lies on the y-axis.

4. Find the distance between the points:

$$A(2,3) \text{ and } B(2,9)$$

5. Find the midpoint of the line segment joining:

$$P(-4,6) \text{ and } Q(2,-2)$$

6. Find the point on the x-axis which is equidistant from A  $(-4, -5)$  and B  $(-2,4)$ .

7. If P  $(2, -1)$ , Q  $(3, 4)$ , R  $(-2, 3)$  and S  $(-3, -2)$  are four points in a plane, check that PQRS is a square or not.

8. Prove that the points  $(3, 0)$ ,  $(6, 4)$  and  $(-1, 3)$  are the vertices of a right-angled isosceles triangle.

9. Show that the points  $(1,-1)$ ,  $(5,2)$  and  $(9, 5)$  are collinear.

10. If point A is at  $(x, 5)$  and it lies on the y-axis, find the value of  $x$ .

### Worksheet-2(Intro to linear Polynomials)

1. Identify the linear polynomials from the following:

- a)  $3x + 5$
- b)  $x^2 + 2x + 1$
- c)  $7y - 9$
- d)  $5a^3 + 2$

2. Write the degree of each polynomial:

- a)  $2x + 7$
- b)  $5x^2 - 3x + 1$
- c) 9

3. A student says:

“Every linear polynomial has exactly one zero.”

Do you agree? Explain with an example.

4. Find the slope of a line passing through the points A  $(-2, -3)$  and B  $(5, -4)$ .

5. Find the equation of the line passing through the point P  $(-1, -4)$  and making an intercept of 2 on the y-axis.

6. Give an example of monomial, binomial and trinomial by taking degree 78.

7. The temperature of a city is represented by:

$$T = 2x + 18$$

where  $x$  is the number of hours after sunrise

**Answer:**

- i. Find the temperature after 3 hours.
- ii. Find the temperature after 5 hours.
- iii. Is the temperature increasing or decreasing?

8. Find the value of:

$$p(x) = 3x - 5$$

when  $x = 2$  and  $x = -1$ .

9. The cost of purchasing notebooks is given by:

$$C = 15n + 20$$

where  $n$  is the number of notebooks

- i. Find the cost of 5 notebooks.
- ii. What does 20 represent?

10. Draw the graph of  $y = 4x$ ,  $y = 2x$  and  $y = x$ .

## Subject Enrichment Activity

1. Few Activities mentioned below. (To be done in the Lab Manual.)  
Activity no- 2 , 5 , 7 , 8 ,10

### Step of Activities:

1. Aim
2. Materials required
3. Procedure
4. Observation
5. Conclusion

## Working Model

2. Make a working model based on the Intro to linear polynomials (Ex-Polynomial Balance machine).
3. Make a working model based on the use of coordinates (Ex- LED coordinate locator model).

## ❖ Science



### General Instructions:

- The assignment should be done in a neat and organized manner.
- Use A4 size sheets or a dedicated project file.
- Diagrams should be drawn with a pencil and labeled clearly.
- Numerical problems must show all steps (Given, Formula, Calculation, Units).

## PART A: PHYSICS (Describing Motion Around Us)

### 1. Data Analysis Project:

Track your movement for 15 minutes during a walk. Record the time at every 100-meter interval. Create a Distance-Time Graph on graph paper and attach it. Calculate your average speed.

### 2. Numerical Challenges:

1. A bus traveling at 54 km/h applies brakes to produce a uniform acceleration of  $-0.5 \text{ m/s}^2$ . Find how far the bus will go before it is brought to rest.
2. An athlete runs along a circular track of diameter 200 m and completes one round in 40 seconds. Find the distance and displacement at the end of 2 minutes 20 seconds.
3. If a train starts from rest and attains a velocity of 72 km/h in 5 minutes, calculate its acceleration and the distance travelled.

### 3. Conceptual Questions:

- a) Differentiate between Distance and Displacement with an example.

b) Explain why circular motion is called accelerated motion even if speed is constant.

c) The Slope Mystery: What physical quantity is represented by:

- The slope of a Distance-Time graph?
- The slope of a Velocity-Time graph?
- The area under a Velocity-Time graph?

#### 4. Comparative Motion Study:

Research the top speeds of three different entities: a Cheetah, a Formula 1 car, and a Commercial Jet. Convert all speeds into m/s (meters per second).

### PART B: CHEMISTRY

#### 1. Kitchen Chemist Project:

Identify five mixtures in your kitchen (e.g., lemonade, air, milk). Categorize them into Homogeneous and Heterogeneous mixtures. Describe separation techniques for any three.

#### 2. Theoretical Work:

- Draw a neat, labeled diagram of Fractional Distillation.
- Define: Saturated solution, Tyndall effect, and Alloy.
- How can we separate a mixture of two immiscible liquids? Explain with a diagram.

#### 3. Concept Map:

Create a one-page flow chart showing the classification of matter into Elements, Compounds, Mixtures (Saturated and Unsaturated) and Separation Techniques.

### PART C: BIOLOGY (The Fundamental Unit of Life)

#### 1. Creative Model Making:

Prepare a 3D model of either a Plant Cell or an Animal Cell using eco-friendly materials recycled materials (pulses, threads, cardboard, clay). Label all major organelles (Nucleus, Mitochondria, Vacuoles, etc.) and display their functions.

#### 2. Experimental Observation:

Perform the Osmosis experiment: Place raisins in (i) plain water and (ii) concentrated sugar solution. Record your observations after 12 hours and explain the results using terms like Hypotonic and Hypertonic.

#### 3. Research & Table:

Create a comparative table highlighting 5 differences between Prokaryotic and Eukaryotic cells.

Short Note: Write about the contributions of Robert Hooke and Leeuwenhoek in the field of Biology.

## ❖ Hindi



### निर्देश:-

- कार्य साफ-सुथरी लिखावट में करें।
- सभी कार्य अलग हिंदी नोटबुक में करें।
- चित्रों एवं रंगों का प्रयोग करें।

**नोट: विद्यालय खुलने पर कार्य जमा करना अनिवार्य है।**

## भाग - 1 : पठन एवं लेखन कौशल

### 1. अपठित गद्यांश

प्रतिदिन समाचार पत्र पढ़िए तथा उसमें से किसी एक महत्वपूर्ण समाचार को अपनी कॉपी में लिखकर उसका 50 शब्दों में सार लिखिए।  
(कम से कम 5 समाचार)

### 2. अनुच्छेद लेखन

निम्नलिखित विषयों में से किसी एक विषय पर 120-150 शब्दों में अनुच्छेद लिखिए -

- मोबाइल फोन : लाभ एवं हानि
- समय का महत्व
- जल ही जीवन है

### 3. रचनात्मक कार्य

“यदि मैं प्रधानाचार्य होता/होती” विषय पर एक सुंदर पोस्टर बनाइए।

## भाग - 2 : साहित्य

### 1. पाठ आधारित कार्य

अपनी हिंदी पुस्तक के निम्न पाठों का अध्ययन कीजिए तथा प्रत्येक का सार अपने शब्दों में लिखिए -

- दो बैलों की कथा
- रैदास के पद

### 2. कविता लेखन

“प्रकृति” विषय पर स्वयं एक कविता लिखिए।

(कम से कम 12 पंक्तियाँ)

## भाग - 3 : गतिविधि आधारित कार्य

### 1. परियोजना कार्य

निम्न विषयों में से किसी एक पर परियोजना तैयार कीजिए -

- भारत की लोक भाषाएँ
- हिंदी के प्रमुख साहित्यकार
- भारतीय त्योहारों का महत्व  
(चित्र, जानकारी एवं सजावट सहित)

## 2. अतिरिक्त कार्य

शब्द भंडार

प्रतिदिन 5 नए हिंदी शब्द लिखिए तथा उनके अर्थ भी लिखिए।

### ❖ Social Science



#### General Instructions

1. Complete all the notes provided in class in your fair notebooks.
2. Revise all handouts thoroughly for the Periodic Assessment.
3. Submit the work neatly in a proper file/folder with your name, class and section mentioned clearly.

#### TASK-1

##### 1. BHARAT EK KHOJ – Learning Through Cinema (Under the guidance of Parents)

Students will watch ANY ONE episode from the famous historical TV series Bharat Ek Khoj based on Indian history and society.

#### Suggested Episodes

- \* Indus Valley Civilisation
- \* Ashoka
- \* The Mauryan Empire
- \* Bhakti Movement
- \* Revolt of 1857
- \* Freedom Struggle

#### Task Options

Choose ANY ONE activity:

##### A. Write a Review

Write about the same in approximately 2 pages.

##### B. Create a colourful and creative poster showing:

- \* Important events
- \* Main characters
- \* Historical messages/themes from the episode

##### C. Character Sketch

Write a detailed character sketch of any one important personality shown in the episode.

##### D. Timeline Activity

Prepare a neat timeline showing the important events presented in the episode in chronological order.

##### E. Comic Strip / Storyboard

## **F. Compare Past and Present**

Write a comparison between the past and present focusing on:

- \* Society
- \* Governance
- \* Culture
- \* Lifestyle
- \* Technology

### **Task -2**

#### **CONNECTING WITH THE ROOTS**

##### **Instructions**

- \* Select the state to which you belong.
- \* Make a travel brochure on an A3 size sheet.
- \* Fold the sheet like a brochure and create 3-4 panels/pages.
- \* Choose any two places of historical interest from your state. These may include:
  - Monuments
  - Religious places
  - Lesser-known heritage sites
  - Neglected or forgotten monuments

**OR**

#### **CREATE A SOCIAL SCIENCE NEWSPAPER**

Design a handwritten newspaper titled:

##### **“THE YOUNG CITIZEN TIMES”**

**Include the following sections:**

- \* Weather Report
- \* Election News
- \* Historical Article
- \* Economic News
- \* Climate Awareness Section
- \* Interviews
- \* Cartoons
- \* Editorial Column
- \* Social News

**OR**

#### **WEATHER TOOLKIT MODEL**

**Include miniature models/cards of:**

- \* Thermometer
- \* Barometer
- \* Hygrometer
- \* Rain Gauge
- \* Wind Vane

**Presentation Guidelines**

- \* Label all instruments properly.

- \* Arrange materials neatly inside the box.
- \* Use creativity and recyclable materials wherever possible.

**OR**

**Model Making Activity( any one)**

- \* Indus Valley town planning
- \* Egyptian Pyramid
- \* Mesopotamian Ziggurat
- \* Ancient irrigation system
- \* Seal or script of any civilisation
- \* Volcano eruption
- \* River valley formation
- \* Layers of the Earth
- \* Water cycle and erosion process
- \* Fold mountain formation

**Submission Guidelines:**

- \* Maintain neatness and originality in all work.
- \* Submit the homework on the assigned date.
- \* Late submissions may affect assessment.

❖ **Information Technology**



**1) Be the Boss!" — Create Your Own Startup File**

Imagine you are an entrepreneur who wants to launch a startup or business of your choice. Create a well-decorated project file in which you act as the founder and present your complete business plan. Use ideas from your textbook chapters — Entrepreneurial Skills – I and Self-Management Skills — I to guide your thinking and planning.

**YOUR FILE MUST INCLUDE ALL OF THE FOLLOWING:**

- Idea & Introduction — What startup/business do you want to open and why?
- Location & Setup — Where will you set it up? What will you need?
- Goal & Vision — What is the mission/vision of your business?
- Workforce Plan — How many workers? What are their roles & salaries?
- Pricing Strategy — How will you price your products/services?
- Investment & Budget — How much money will you need to start?
- Marketing Plan — How will you promote your business?
- Unique Selling Point — What makes your business different from others?
- Challenges & Solutions — What problems may you face? How will you solve them?
- Future Plans — How will you grow your business in 5 years?

**2) Complete your notebook till done in the class.**

## ❖ Art & Craft



### ➤ Lippan Art

#### Materials to be used-

- Hard Board or MDF Board (anyone) (12x12 inch) (shape - square or round only)
- Mouldit Clay
- Fabric Colours
- Mirrors
- Fevicol



## ❖ Physical Education



### Instructions for Students

- Prepare the project neatly on A4 sheets or in a project file.
- Use blue/black pen and draw diagrams wherever required.
- Paste relevant pictures of the game/sport.
- Submit the homework after summer vacation.

Maintain proper handwriting and presentation.

### Part A – Report Writing (5 Marks)

Visit any one of the following and prepare a short report (1–2 pages):

- Open Tournament/Competition
- Gymnasium/Fitness Centre
- Stadium
- Sports Institution/Academy

#### Your report should include:

1. Name of the place visited
2. Date and time of visit
3. Activities observed
4. Facilities available
5. What you learned from the visit

### Part B – Sports Project File (30 Marks)

Choose any one game/sport mentioned in CBSE Games and prepare a project file covering the following topics:

#### 1. History of the Game (200 Words)

Write about:

- Origin of the game
- Founder/inventor
- Development of the game in India and world

#### 2. Terminology of the Game (Any 5)

Example:

- Dribble
- Pass
- Serve
- Smash
- Goal

Write meanings of any five terms related to your chosen sport.

#### 3. Fundamental Skills (Any 5)

Explain five basic skills of the game with pictures/diagrams.

Example for Basketball:

- Dribbling
- Passing
- Shooting
- Rebounding
- Defense

#### 4. Rules of the Game (Any 5)

Write any five important rules of your chosen sport.

#### 5. Ground/Court/Field Specifications

Include:

- Length and width
- Important markings
- Equipment used

#### 6. Common Injuries (Any 3)

Write about common sports injuries and prevention methods.

Example:

- Sprain
- Muscle pull
- Knee injury

#### 7. Indian Sports Personalities/Awardees (Any 5)

Write about five famous Indian players related to your sport.

Examples:

- Sachin Tendulkar
- P. V. Sindhu
- Neeraj Chopra
- Sunil Chhetri

#### 8. National/International Competitions (Any 3)

Write names and details of major tournaments.

Examples:

- Olympics
- Asian Games
- CBSE National Games
- IPL
- FIFA World Cup

