



## HOLIDAY HOMEWORK (2026-27) GRADE IX

### *Reconnect with your Inner Self*

Dear Parents,

Jai Hind!

At Mayor World School, we believe that education is a blend of academics, values, and innovation.

The holiday homework has been thoughtfully designed to unleash children's creativity and keep them meaningfully engaged in the spirit of learning. Moreover, the summer guidelines are simple yet meaningful steps to nurture empathy and responsibility. By encouraging each child to pursue an artistic activity of choice, we aim to foster joy in self-expression, reflection, and sharing.

With your support, these practices will help our students grow into compassionate, responsible, and imaginative individuals.

#### Summer Guidelines

- ✓ Keep Water Containers.
- ✓ Place clean water container outside your homes to help stray animals and birds stay cool and hydrated during the hot weather.
- ✓ Stay hydrated.
- ✓ Drink plenty of water throughout the day. Carry a water bottle whenever you go out.

#### Extend empathy

- ✓ Be kind to people, animals, and the environment. Small acts of care - like feeding birds or helping neighbours - make a big difference.
- ✓ Avoid wastage
- ✓ Use resources wisely. Do not waste food, water or electricity.
- ✓ Protect yourself.
- ✓ Wear light cotton clothes, use sunscreen, and avoid going out in the scorching midday sun.

#### Mandatory Activity

##### Awaken your Inner Artist

During the summer holidays, each student is expected to engage in one creative activity of their choice - such as painting, music, singing, dance, craftwork, or any other area that interests them.

Paste a picture of yourself doing the activity chosen in your English notebook. Bring your creative work to the School to show to your Grade In charge after the vacation (if singing and dancing chosen then record and bring in a pen drive).

Warm regards,

Mayor World School

# **ENGLISH**

## **Task1: Threads of Tradition**

Drawing inspiration from the chapters in the textbook ‘Kaveri’, write an essay on the theme “**Preserving India’s Art and Culture.**”

### **Instructions:**

- Word Limit: 350–400 words.
- Structure: Introduction, body (with examples), conclusion.
- Integration: Refer to the chapters- The Pot Maker and Winds of Change - from ‘Kaveri’ that highlight cultural traditions or values.
- Examples: Include one Indian art form (painting, dance, craft, or folk tradition) and explain its relevance.
- Tone: Formal and reflective
- Presentation: Neatly written on A4 sized sheets

## **Task 2 :The Listening Lamp**

Conduct an interview with an elderly family member or a neighbour who has witnessed a major historical or social transition (for example, the introduction of smartphones, a migration story, or changing neighbourhood dynamics). Prepare five well-crafted questions to ask them about how they coped with that shift.

After conducting the interview, prepare a write-up (200 words) summarising their resilience and linking it to the human tendency to adapt, as reflected in the literature chapters you have studied.

### **Instructions:**

1. Interview Preparation: Frame five thoughtful questions that explore personal experiences, coping strategies, and reflections on change.
2. Conducting the Interview: Record responses carefully in your own words.
3. Write-up: Write a 200-word write-up highlighting the interviewee’s resilience and connect it to themes of adaptation in literature.
4. Format: The interview questions and essay must be handwritten on A4 sized
5. Video Component: Create a short video (2-3 minutes) narrating your interview experience and send it via email:

**IX A, IX C: kpreetkaur348@gmail.com**

**IX B: mwsshikhasharma@gmail.com**

6: Submit the writing tasks in a neatly covered hardbound file

7: Date of submission: 10<sup>th</sup> July 2026.

# MATHEMATICS

## Practice Worksheet

### Instructions

- Attempt all the questions neatly in serial order.
- The worksheet must be solved on a separate thin notebook.

- Q1.** The degree of zero polynomial is \_\_\_\_\_.
- Q2.**  $5x^2$  is a binomial (True or False)
- Q3.** Degree of the polynomial  $4x^4 + 0x^3 + 0x^5$  is \_\_\_\_\_
- Q4.** Find the value of a when the distance between the points (3, a) and (4, 1) is  $\sqrt{10}$  units.
- Q5.** Find a point on x-axis which is equidistant from the points (7, 6) and (-3, 4)
- Q6.** Find the coordinates of points which trisect the line segment joining (1, -2) and (-3, 4)
- Q7.** Reflection of point D (-2, 3) in x axis is \_\_\_\_\_
- Q8.** What is the perpendicular distance of the point A (5, 9) from y axis?
- Q9.** What will be the ordinate of all the points on y axis?
- Q10.** Check if  $3x(x-1) = x(3x+5) - 2$  is a linear equation?
- Q11.** The cost of petrol is Rs 100 per litre. Express it as a linear equation with x representing the number of litres and y representing the total cost in rupees?
- Q12.** Ashu has inherited 30 novels from her grandmother. Each year she vows to buy 2 novels to grow the collection in her library. How many novels will she have in 10 years? How long will it take her to have 100 novels in her library?
- Q13.** Identify the terms and coefficients for the following expressions.
- $$7x^2y - 5xy + 2$$
- Q14.** What should be added to  $3a^2 - a$  to get  $2a^2 + 4a$ ?
- Q15.** Find the value of the polynomial  $3x^3 - 4x^2 - 7x + 13$  for  $x = 2$
- Q16.** Write three rational numbers equivalent to  $\frac{-5}{3}$ .
- Q17.** Express  $0.\overline{57}$  in the form of  $\frac{p}{q}$  in simplest form.
- Q18.** If the mid-point of the line segment joining the point P (6, b-2) and Q (-2, 4) is (2, -3), find b.
- Q19.** Find coordinates of point A, where AB is the diameter of a circle whose centre is (2, -3) and B (1, 4)

**Q20.** Represent root 17 on number line.

**Dream House Blueprint (Coordinate Geometry Project)**

Dear Students,

You are required to complete the following activity neatly on graph paper:

Instructions:

1. Draw a Coordinate Grid

- Use graph paper and draw X-axis and Y-axis.
- Take a suitable scale (e.g., 1 unit = 1 metre).

2. Design Your Dream House

- Create a floor plan with at least 3–5 rooms (bedroom, kitchen, hall, etc.).
- Each room should be in the shape of a rectangle or square.
- Mark the coordinates of all vertices clearly.

3. Calculate for Each Room:

- Length and Breadth
- Perimeter
- Area

4. Find Diagonal Length

- Use the distance formula to calculate the diagonal of each room.

5. Find Total Area

- Add the areas of all rooms to find the total area of the house.

6. Presentation

- Label all rooms clearly.
- Use colours for neatness and creativity.
- Show all calculations step-by-step on a separate sheet.

Submission Guidelines:

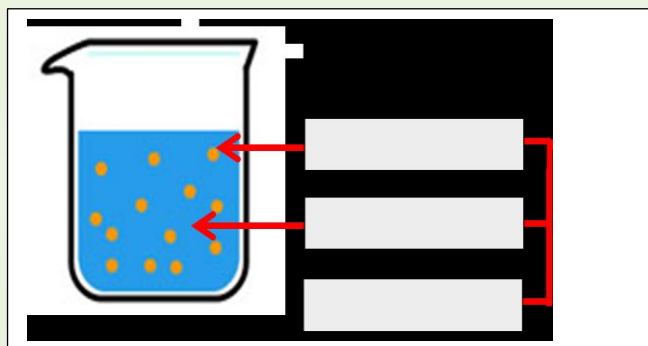
- Work should be neat, well-labelled, and properly explained.
- Attach graph paper and calculation sheets together.
- Assessment will be based on accuracy, presentation, and creativity.

# SCIENCE

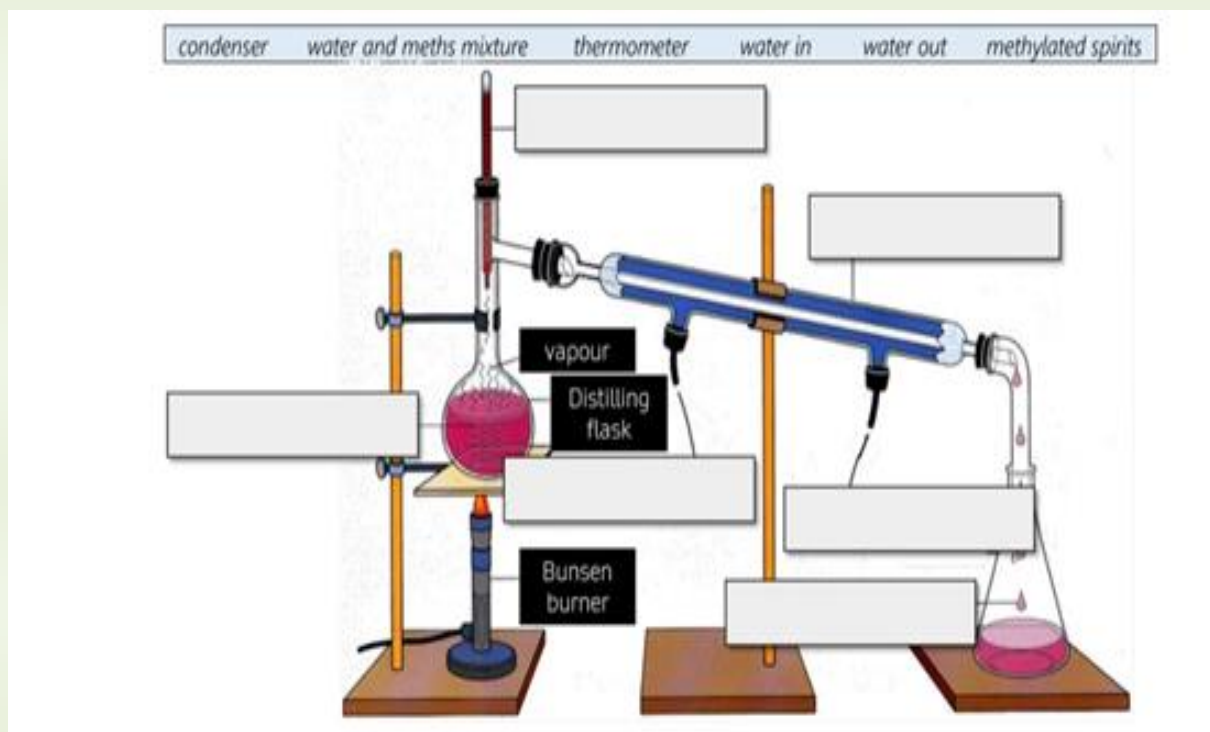
## CHEMISTRY

1. Label the mixture of salt water and identify the substances











COMPONENT	SUBSTANCE
Solution	
Solvent	
Solute	



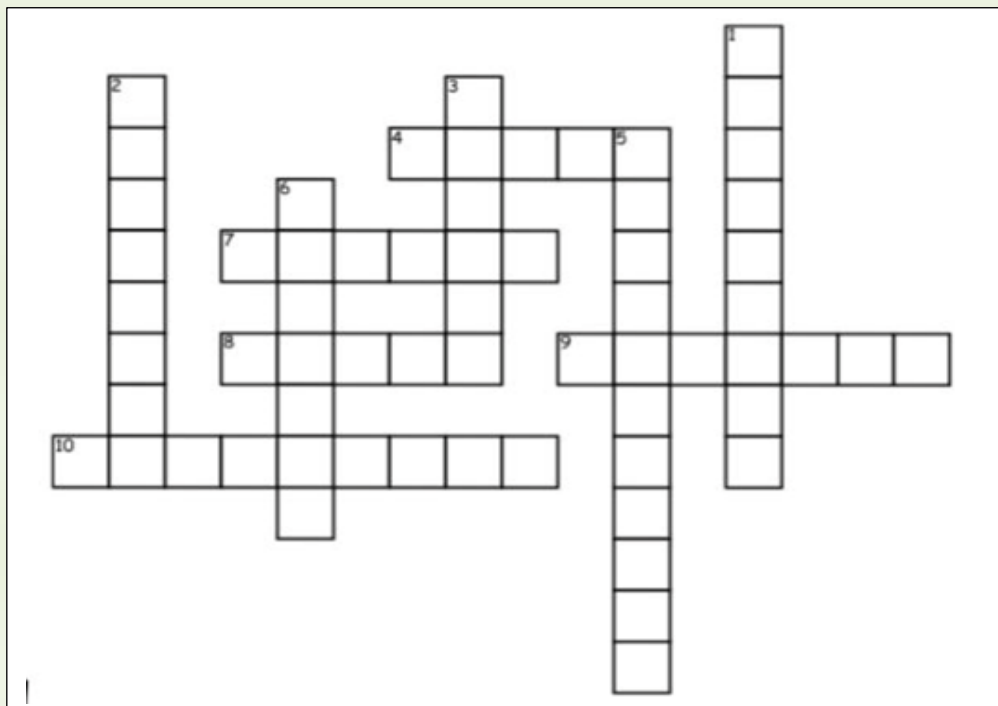
2. Complete the labelled diagram of the distillation process of water and methylated spirit mixture:



3. Match the mixture with the method we would use to separate it

Mixed vegetables 	Hand picking 
Sand and iron filings 	Evaporation 
Salt solution 	Filtration 
Ink 	Magnetism 
Sand and water 	Chromatography 

4. Solve the Crossword using clues.



The crossword puzzle grid consists of 10 numbered starting points for clues:

- 1: Down, 10 letters
- 2: Down, 10 letters
- 3: Down, 3 letters
- 4: Across, 4 letters
- 5: Down, 10 letters
- 6: Down, 3 letters
- 7: Across, 6 letters
- 8: Across, 6 letters
- 9: Across, 6 letters
- 10: Across, 6 letters

## ACROSS

- This can be used to separate gravel from sand.
- A solid that has been dissolved in a liquid is called \_\_\_\_\_.
- This common solid dissolves in water and is commonly used to sweeten drinks.
- A liquid in which a solid has been dissolved is called \_\_\_\_\_.
- When a solid cannot dissolve in a liquid it is \_\_\_\_\_.

## DOWN

- Salt \_\_\_\_\_ in water.
- A \_\_\_\_\_ is a mixture of solid dissolved in a liquid.
- This can be used to separate tiny solid particles from a liquid.
- This process can be used to separate a solid dissolved in a liquid.
- When a solid can be dissolved in a liquid.

***Kindly paste the printout of above work in your chemistry notebook.***

## PHYSICS

***Theme: "Physics is Everywhere!"***

### ❖ ***Mission 1: Escape the Physics Lab***

You are trapped inside a secret science lab!

To unlock the exit door, solve the following puzzles.

#### **🔒 Lock 1: Crack the Code (MCQs)**

A body moving with constant speed in a straight line has:

- Acceleration
- Uniform motion
- Circular motion
- Retardation

Which has maximum inertia?

- Football
- Bicycle
- Truck
- Tennis ball

SI unit of force is:

- Joule
- Newton
- Pascal
- Watt

A rocket moves upward because:

- Gravity
- Friction
- Action-Reaction
- Inertia

❖ **Mission 2 : Physics Detective Case File**

Read the mystery carefully:

Aarav was standing in a bus. Suddenly the driver applied brakes and Aarav fell forward.

Investigate:

Which law explains this incident?

Why did Aarav fall forward?

How can this be prevented?

❖ **Mission 3: Arena**

Challenge 1

Why do passengers lean sideways when a car takes a sharp turn?

Challenge 2

Why are helmets important for bike riders according to Newton's laws?

Challenge 3

Why does a gun recoil backward when a bullet is fired?

Mission 4: Graph Ninja

A student walks:

0–2 min → slowly

2–5 min → fast

5–7 min → stops

**Task:**

Draw a distance-time graph for the motion.

**Kindly complete your work in Physics notebook.**

**BIOLOGY**

**Topic: Joint Movements and Dance**

*Dance is not only a form of entertainment but also a wonderful way to understand how our muscles, bones, and joints work together to help our body move.*

**Activity Task**

*Choose any one dance form of your choice such as:*

\* **Bhangra**

\* **Hip-Hop**

\* **Classical Dance**


\* **Folk Dance**

\* **Bollywood Dance**

\* **Contemporary Dance**

*Learn and practice at least five dance steps from your selected dance form.*

*While performing the dance steps, carefully observe and identify:*

 **The joints used during movement**

✚ Types of movements such as bending, rotating, stretching, jumping, balancing, etc.

✚ Types of joints involved:

- Hinge Joint
- Ball and Socket Joint
- Pivot Joint
- Gliding Joint



# BIOLOGY

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- The joints used during movement
- Types of movements such as bending, rotating, stretching, jumping, balancing, etc.
- **Types of joints involved:**



Hinge Joint



Ball and Socket Joint



Pivot Joint



Gliding Joint

### PROJECT WORK

Prepare a Science Project File including the following:

- 1 Name and introduction of the dance form
- 2 Pictures or drawings of the five dance steps
- 3 Joints involved in each step
- 4 Brief explanation of the movements observed
- 5 A table showing:

- Dance Step
- Joint Used
- Type of Joint
- Type of Movement

DANCE STEP	JOINT USED	TYPE OF JOINT	TYPE OF MOVEMENT
1.			
2.			
3.			
4.			
5.			

### INSTRUCTIONS

- ✓ Submit a hard copy of a handwritten or printed file
- ✓ The file should consist of 6–8 pages
- ✓ Use neat presentation with colourful illustrations and labels
- ✓ Include proper headings and diagrams or pictures
- ✓ Submit the project after the summer vacation



Learn Science Through Movement and Creativity!



## Project Work

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*Learn Science Through Movement and Creativity! ✨*

## **SOCIAL SCIENCE**

Dear Students,

Jai Hind!

As part of your holiday homework, you are required to prepare a **Project Report on Natural Disasters**. Your report should cover the topic from the perspectives of **Geography, History, and Economics**.

### **Geography**

- Earthquake (Roll no. 1-5)
- Landslides (Roll no. 6-10)
- Avalanche (Roll no. 11-16)
- Dust storms (Roll no. 17- 22)
- GLOF (Roll no. 23-27)

**Areas to be covered: -**

- Causes
- Impact
- Mitigation strategies

- Case study (Recent evidences with pictures)

## History

- Explain how historians believe natural disasters may have contributed to the decline of Harappan Civilisation
- Mention archaeological evidence that supports these theories

## Economics

### Areas to be Covered:

- Introduction and causes of the disaster
- Economic impact of the disaster on people, resources, transport, trade, employment, and prices
- Scarcity of resources and economic choices during disasters
- Effect on demand and supply of essential goods
- Role of government, relief measures, and welfare services
- Measures to reduce economic losses and improve disaster preparedness
- Economic case study of a recent disaster with pictures

### Instructions:

Use neat handwriting

- i Add relevant pictures, maps, and diagrams
- ii Write in your own words
- iii Make the project creative and well-presented
- iv Mention sources of information used

**The Report should be handwritten in Geography or Economics notebook. Maximum word limit is 500 words.**

**Readymade work will lead to deduction of subject enrichment marks**

Enjoy your holidays, stay safe and keep learning!

Happy and safe holidays!

Regards

## **HINDI**

1. पुराने समाचार पत्र काटकर लघु हिंदी समाचार पत्र तैयार कीजिए जो कि आपकी अपनी बनाई हुई रचना है।
2. विवरणिका (ब्रोशर) बनाएं :- किसी एक भारतीय महान ग्रंथ की चित्रों की जुबानी जैसे महाभारत, रामायण आदि
3. अपना पोर्टफोलियो तैयार कीजिए।

## PUNJABI

ਨੋਟ: ਛੁੱਟੀਆਂ ਦਾ ਸਾਰਾ ਕੰਮ ਇੱਕ ਅਲੱਗ ਕਾਪੀ ਵਿੱਚ ਕੀਤਾ ਜਾਵੇ ਅਤੇ ਫਾਈਲ ਅਲੱਗ ਤੋਂ ਬਣਾਈ ਜਾਵੇ।

1. ਹੇਠ ਲਿਖਿਆਂ ਵਿੱਚੋਂ ਕਿਸੇ ਇੱਕ ਵਿਸ਼ੇ ਤੇ ਛੇ ਤੋਂ ਸੱਤ ਪੰਨਿਆਂ ਦੀ ਤਸਵੀਰਾਂ ਸਹਿਤ ਫਾਈਲ ਬਣਾਓ।

ੳ) ਪੰਜਾਬ ਦੇ ਪ੍ਰਸਿੱਧ ਦਿਨ, ਤਿਉਹਾਰਾਂ ਤੇ ਮੇਲਿਆਂ ਬਾਰੇ ਜਾਣਕਾਰੀ

ਅ) ਪੰਜਾਬ ਦੇ ਪੁਰਾਤਨ ਸੱਭਿਆਚਾਰ ਬਾਰੇ ਜਾਣਕਾਰੀ

ੲ) ਪੰਜਾਬ ਦੇ ਪ੍ਰਸਿੱਧ ਲੋਕ- ਨਾਚ ਬਾਰੇ ਜਾਣਕਾਰੀ

ਸ) ਪੰਜਾਬ ਦੀਆਂ ਪ੍ਰਸਿੱਧ ਲੋਕ- ਖੇਡਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ

2. ਹੇਠ ਲਿਖੇ ਪੱਤਰ ਲਿਖੋ।

ੳ) ਆਪਣੇ ਮਿੱਤਰ ਨੂੰ ਪੱਤਰ ਲਿਖੇ ਤੇ ਦੱਸੋ ਕਿ ਤੁਸੀਂ ਗਰਮੀ ਦੀਆਂ ਛੁੱਟੀਆਂ ਕਿਵੇਂ ਬਿਤਾਈਆਂ।

ਅ) ਪੋਸਟ ਮਾਸਟਰ ਨੂੰ ਆਪਣੇ ਇਲਾਕੇ ਦੇ ਡਾਕੀਏ ਦੀ ਲਾਪਰਵਾਹੀ ਕਾਰਨ ਹੋਏ ਨੁਕਸਾਨ ਬਾਰੇ ਦੱਸਦੇ ਹੋਏ ਉਸ ਨੂੰ ਅੱਗੇ ਤੋਂ ਹਦਾਇਤ ਦੇਣ ਸੰਬੰਧੀ ਪੱਤਰ ਲਿਖੋ।

3. 'ਯੂ-ਟਿਊਬ' ਉੱਤੇ 'ਸੰਤੋਖ ਸਿੰਘ ਧੀਰ' ਦੀ ਲਿਖੀ ਹੋਈ ਕਹਾਣੀ 'ਸਾਂਝੀ-ਕੰਧ' ਵੇਖੋ ਤੇ ਛੁੱਟੀਆਂ ਤੋਂ ਬਾਅਦ ਜਮਾਤ ਵਿੱਚ ਇਸ ਬਾਰੇ ਚਰਚਾ ਕਰੋ।