



مدارس دارة السلام العالمية- الرياض

**Delhi Public School –Riyadh**

**Holiday Homework (2026)**

**Grade: IX**



**SUBJECT: MATHEMATICS**

- Find the area of the triangle whose vertices are  $(0, 4)$ ,  $(0,0)$  and  $(2,0)$  by plotting these points on a graph paper.
- Show that the points  $A(5,6)$ ,  $B(1,5)$ ,  $C(2,1)$  and  $D(6,2)$  are the vertices of a square.
- If the midpoint of the line segment joining the point  $P(6, b - 2)$  and  $Q(-2, 4)$  is  $(2, -3)$ . Find the value of  $b$ .
- Determine by distance formula, whether the points  $(1, 2)$ ,  $(5, 3)$  and  $(18, 6)$  are collinear.
- The total length of a hanging spring ( $y$ ) increases linearly with the weight ( $x$ ) attached to it. When a 2kg weight is attached, the spring is 12 cm long. When a 5 kg weight is attached, the spring is 18 cm long.
  - Find the linear relationship  $y = ax + b$ .
  - What was the original length of the spring before any weight was added?
- Plot the lines  $y = 2x$ ,  $-2x + y = 1$ ,  $2x - y - 3 = 0$  and  $y = 2x + 2$  on the same pair of axes. Identify their slopes and y-intercepts. Also, find the coordinates of the points where the lines cut the axes.
- A water tank is draining at a steady rate. After 2 hours, there are 400 litres left in the tank. After 6 hours, there are 240 litres left. Find the value of  $a$  and  $b$  for the relationship  $y = ax + b$ , where  $x$  is hours and  $y$  is the volume of water.
- You go to a school fair with ₹ 600. Every game you play costs ₹ 35.
  - How much money will you have left after playing 3 games, 6 games and 10 games?
  - Find the linear expression for the money left after playing  $n$  games.
- Prove that  $\sqrt{3}$  is an irrational number.
- Express each of the following decimals in the  $\frac{p}{q}$ -form:  
(A)  $0.\bar{4}$                       (B)  $0.\bar{37}$                       (C)  $0.\bar{621}$                       (D)  $0.\bar{235}$                       (E)  $4.3\bar{2}$
- Find two rational and irrational numbers between  $\frac{2}{9}$  and  $\frac{2}{13}$ .

12. Factorize:

(a)  $x^2 + 11xy + 30y^2$

(b)  $2x^2 - 9xy - 5y^2$

(c)  $27 - 125a^3 - 135a + 225a^2$

(d)  $x^3 - 27y^3 + 8z^3 + 18xyz$

(e)  $8a^5b^2 + 27a^2b^5$

(f)  $8x^3 - 27$

13. Simplify the following rational expressions assuming that the expressions in the denominators are not equal to zero.

(A)  $\frac{x^2 - 4xy + 4y^2}{x^2 - 4y^2}$

(B)  $\frac{p^2 + q^2 + r^2 - 2pq + 2qr - 2rq}{(p - q - r)(p - q + r)}$

(C)  $\frac{a^3 + 8b^3 + c^3 - 6abc}{a^2 + 4b^2 + c^2 - 2ab - 2bc - ca}$

(D)  $\frac{x^3 + 6x^2 + 12x + 8}{x + 2}$

14. Find the value of  $8x^3 + y^3$ , if  $2x + y = 3$  and  $xy = 1$ .

15. If  $a + b + c = 3$ ,  $a^2 + b^2 + c^2 = 5$  and  $a^3 + b^3 + c^3 = 9$ , find the value of  $abc$ .

### ART INTEGRATED PROJECT: LINEAR EQUATIONS LANDSCAPES

**NOTE: Homework should be done on A4 size sheets. Arrange the answer sheets orderly, keep them in a folder and submit. Front page should be decorated also it should depict your name, grade and section. Kindly be adhere to the submission date i.e.25/08/ 2026.**

# SCIENCE

## PHYSICS

What is Motion?

---

---

**Define types of Motion.**

1. Translatory Motion

---

---

2. Circular Motion

---

---

3. Rotational Motion

---

---

4. Oscillatory Motion

---

---

**Basic terms related to Motion**

1. Distance

---

---

Formula: \_\_\_\_\_

2. Displacement

---

---

Formula: \_\_\_\_\_

3. Speed

---

---

Formula: \_\_\_\_\_

4. Velocity

---

---

Formula: \_\_\_\_\_

5. Acceleration

---

---

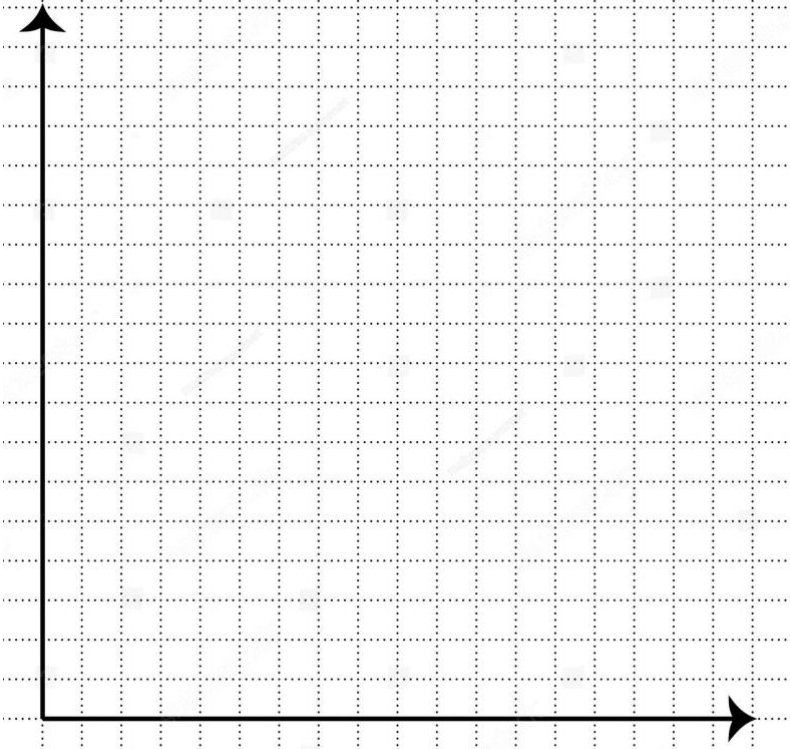
---

Formula:

**Equations of Motion.**

**Proof by Graphical Method**

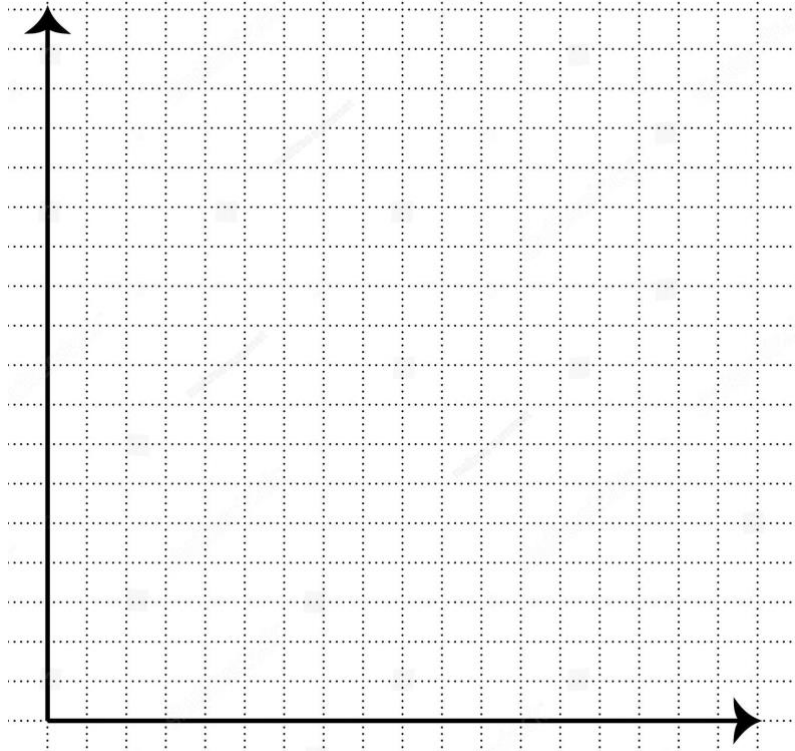
$$v = u + at$$



shutterstock

IMAGE ID: 1589573092  
www.shutterstock.com

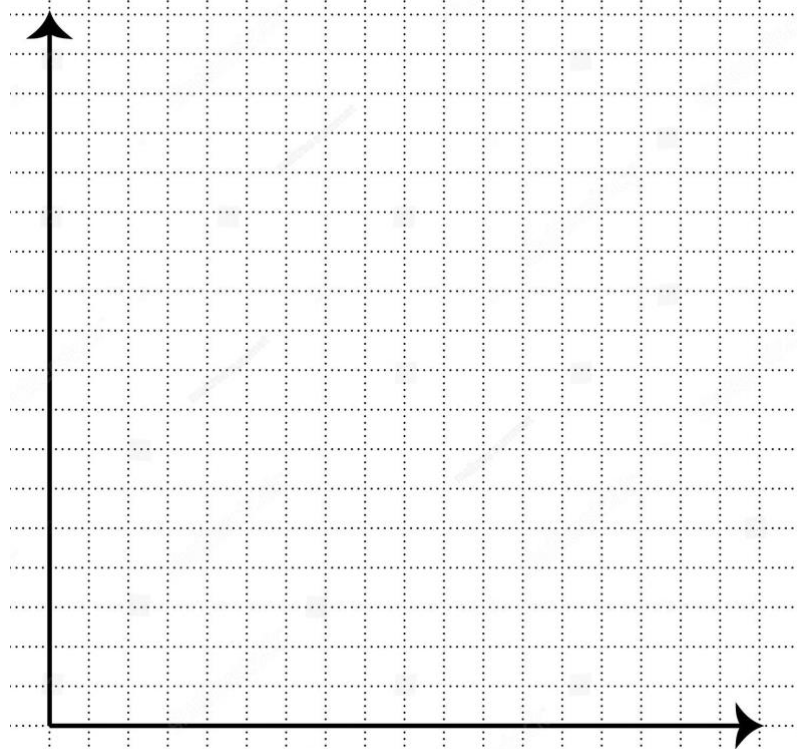
$$s = ut + \frac{1}{2} at^2$$



shutterstock

IMAGE ID: 1589573092  
www.shutterstock.com

$$2aS = v^2 - u^2$$



shutterstock

IMAGE ID: 1589573092  
www.shutterstock.com

## CHEMISTRY

1. Which separation techniques will you apply for the separation of the following?

- (a) Sodium chloride from its solution in water.
- (b) Ammonium chloride from a mixture containing sodium chloride and ammonium chloride.
- (c) Small pieces of metal in the engine oil of a car.
- (d) Different pigments from an extract of flower petals.
- (e) Butter from curd.
- (f) Oil from water.
- (g) Tea leaves from tea.
- (h) Iron pins from sand.
- (i) Wheat grains from husk.
- (j) fine mud particles suspended in water.

2. Take an earthen pot (matka), some pebbles and sand. Design a small-scale filtration plant that you could use to clean muddy water.

## **BIOLOGY**

### **Complete all the questions and answers from chapter”**

#### **Tissues’**

## **SOCIAL SCIENCE**

### **SUBJECT:DISASTERMANAGEMENT**

#### **TOPIC: EARTHQUAKE**

#### **Objectives:**

The main objectives of giving project work on Disaster Management are to:

- To create awareness in them about different disasters, their consequences and management.
- To prepare them in advance to face such situations.
- To ensure their participation in disaster risk reduction plans.
- To enable them to create awareness and preparedness among the community.
- The Project work helps in enhancing the Life Skills of the students.
- Various forms of art must be integrated in the project work.

#### **Guidelines:**

- If required, students may go out for collecting data and use different primary and secondary resources to prepare the project. If possible, various forms of art may be integrated in the project work.

#### **Topics to be covered under the project:**

- What is an Earthquake?
- What Causes an Earthquake?
- What to do During an Earthquake?  
Before the disaster  
Do's and Don'ts  
After the disaster
- What are the Effects of an Earthquake?
- What is the difference between seismograph and Richter scale?
- Protection against Earthquake.
- What is an earthquake zone?
- What are earthquake zones in India?

## **INDIVIDUAL FORMAL HANDWRITTEN REPORT**

### **INSTRUCTIONS AND GUIDELINES TO ON HOW TO WRITE THE PROJECT:**

- The other side of the paper i.e. the left side should be used for pasting pictures, newspaper cuttings etc.
- However, lines to write/pictures/watermarks/borders can be printed.
- Cover page also has to be hand written. You can use charts/colored sheets/any other paper.
- Cover page showing project title, student information, school and year.
- List of Content or Index
- Acknowledgement Preface – (In this section you may thank the people who have helped you in writing the report)
- Introduction – The Introduction should present the aim of the project and the background of investigation. It should explain why the project is important and interesting.
- Topics with suitable heading
- Conclusion – What have you understood about the project, its importance etc.
- Bibliography – This includes reference to websites and books/articles consulted while writing the report.
- All photographs and sketches should be labelled and related to the theme.
- Question based on the project report will be asked as Viva test.

**Viva test on: 06/09/2026 NOTE: Kindly be adherent to the submission date: 06/09/2026**

1.

**Digital Storytelling Project**

Use digital storytelling to preserve the educational struggles and lived experiences of elder women in your family or community.

Interview 2–3 elder women from your family or community. Collect stories about:

1. Their struggles in attaining education, or obstacles they faced

OR

2. How/why they had to give up their educational dreams.

Convert these interviews into a **short film or podcast**.

Ensure that the final product accurately represents their voices, reflects cultural and generational context and highlights the importance of education for women in India.

2.

**Traditional Cookbook Project**

Document traditional recipes to help preserve culinary heritage.

Prepare a cookbook featuring **2–3 traditional recipes**.

For each recipe, include a step-by-step cooking method, explanation of its cultural importance (can be limited to the traditional practices of your family) and significance of any native or region-specific ingredients used in the recipe.

The cookbook must:

1. be bound (handmade binding is acceptable).
2. include pictures of you cooking the dish, the person who taught you the recipe and the final dish.

Ensure that the final product resembles an actual book. The book could be handwritten or printed.

3.

**Comparative Heritage Art Project**

Compare the major differences in design, technique, and purpose between pottery from the **Harappan period** and the **Mughal period**.

The project should be about 10–12 pages long and must include:

1. Cover page
2. Foreword/Preface
3. Table of contents
4. Acknowledgement
5. Introduction
6. Main content (comparative analysis)
7. Conclusion

The project should be handwritten and visually attractive with relevant pictures and clear formatting.

4.

**Assigned Reading**

'The Eyre Affair' by Jasper Fforde

Read the book and write a short book review emphasizing what you liked and disliked about the book.

**SECOND LANGUAGES**

**HINDI**

- 1- वन, लता, पुष्प आदि भारत के अमूल्य प्राकृतिक संसाधन हैं। इनके संरक्षण के लिए सरकार द्वारा बनाए गए अधिनियमों के बारे में सूचना एकत्रित कीजिए और वन संरक्षण के लिए बनाए नियमों की जानकारी दें।
- 2- 'झाँसी की रानी' कविता के मुख्य छंदों (जैसे - "बुंदेले हरबोलों के मुँह...", "सिंहासन हिल उठे...") को अलग-अलग पृष्ठ पर लिखें। हर छंद के साथ उससे संबंधित चित्र बनाइए या स्केचिंग करें या पुराने अखबारों या इंटरनेट से उस कालखंड के चित्र (जैसे किला, तलवारें, घोड़े) काटकर कोलाज बनाइए।

**URDU**

**Grade 9 Urdu 2<sup>nd</sup> lang Holiday Homework 2026-27**

- 1-خواجہ میر درد کے پانچ اشعار خوش خط چارٹ پر لکھیے۔
- 2-منشی پریم چند کی کسی کہانی (نصاب کے علاوہ) کا خلاصہ اپنے الفاظ میں تحریر کیجیے۔
- 3-پرنسپل نے نام دادا کے انتقال پر ایک دن رخصت لینے کے لیے درخواست دیجیے۔ اور
- ہاسٹل میں مقیم اپنے چھوٹے بھائی کو خط میں مشورہ دیجیے کہ وہ کس طرح اپنے اوقات کا صحیح استعمال کرے۔
- 4-اسکول کا پہلا دن، اس موضوع پر دو سو الفاظ پر مشتمل مضمون لکھیے

**ARABIC**

1. اکتب مقالاً (120-150 كلمة) عن "أهمية التعليم".
2. اکتب رسالة إلى صديقك تشرح له كيف قضيت الإجازة الصيفية.
3. كَوِّن خمس جمل مستخدماً:

- إنَّ
- لعلَّ
- ليت
- حيث

4. اقرأ مقالاً عربياً واكتب ملخصه في 80 كلمة.  
5. حضر قائمة من 15 كلمة جديدة مع معانيها واستخدم خمساً منها في جمل.

## :FRENCH

### I- Prépare ta fiche d'identité.

Nom :
Prénom :
Date de naissance :
Nationalité :
Domicile :
Téléphone :
Courriel :

### II- Que représente ces abréviations :

- SNCF.....  
TGV.....  
PDG.....  
ONV.....  
OMS.....

### III- Conjuguez les verbes suivants: au present

#### 1 /Parler

Je	Nous
Tu	Vous
Il	Ils
Elle	Elle

## 2/ remplir.

Je	Nous
Tu	Vous
Il	Ils
Elle	Elle

## IV- Donnez les nationalités:

Pays	Masculin	Féminin
sSénégal		
Canada		
Inde		
France		
Angleterre		
Etas-Unis		

## V- Conjuguez au future proche les verbes:

### 1/ Parler

Je	Nous
Tu	Vous
Il	Ils
Elle	Elle

### 2/ choisir

Je	Nous
Tu	Vous
Il	Ils
Elle	Elle

### 3/ entendre

Je	Nous
Tu	Vous
Il	Ils
Elle	Elle

**VI-Qu'est-ce qu'on mange :**

**1/Au petit déjeuner**

.....  
.....  
.....  
.....

**2/Au déjeuner**

.....  
.....  
.....  
.....

**3/Au goûter**

.....  
.....  
.....  
.....

**4/Au dîner.**

.....  
.....  
.....  
.....

**5-décris ta journée en quelques lignes (10lignes minimum)**

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

.....

**6-Décris ta famille en dix à douze phrases dans ton cahier.**

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

TAMIL

1. வீட்டிற்கோர் புத்தகசாலை (25- books name and author name)
2. கலை, அழகியல், புதுமை, சிற்பக்கலை (படம் ஒட்டி எழுதி வரவும்)

MALAYALAM

1. വായനയും ആസ്വാദനക്കുറിപ്പും

\*ഒരു മലയാളം/ഇംഗ്ലീഷ് പുസ്തകം വായിക്കുക

. കഥാസാരം, കഥാപാത്രങ്ങൾ, പുസ്തകത്തിൽ നിന്ന് ലഭിച്ച സന്ദേശം എന്നിവ  
1 എഴുതുക.

2. വാർത്താ വിശകലനം

\*ദിവസവും ഒരു വാർത്ത വായിച്ച് അതിന്റെ ചുരുക്കം എഴുതുക. ആ  
വാർത്തയെക്കുറിച്ചുള്ള സ്വന്തം അഭിപ്രായവും രേഖപ്പെടുത്തുക.

3. പ്രാദേശിക ചരിത്ര പഠനം

\* നിങ്ങളുടെ നാട്ടിലെ ഒരു ചരിത്രപ്രാധാന്യമുള്ള സ്ഥലത്തെക്കുറിച്ച്  
വിവരങ്ങൾ ശേഖരിക്കുക.

\* ചിത്രങ്ങളോടുകൂടിയ റിപ്പോർട്ട് തയ്യാറാക്കുക.