

DELHI PUBLIC SCHOOL JAMMU  
HOLIDAY HOMEWORK  
SESSION 2023-24



Class X

Dear Students

Summer vacations are synonymous with fun, frolic, getting up late in the morning, going for picnics, spending time with friends, exploring new places, and watching fun filled shows on television. But there is lot more you can do to make your vacations more meaningful, interesting, and fun while still doing your favourite activities.



Here are some suggestions you may like:

- Go out for morning walk and spend time to observe nature.
- Watch your mom working in the kitchen and help her keep the house clean.
- Visit your grandparents, spend time with them.
- Teach them to operate some useful applications in mobile phones.
- Plant a sapling and watch it grow.
- Play any sport with your parents which they played during their school days.
- Devote some time for reading during the summer break. Some suggested books:



Summer vacation is the time when you can be more candid and creative. The Holiday assignments are focused to let the creative and latent talents, skills and desires of the children come to the surface in a joyful and experiential manner.

So dear children, Get... Set... Go... Enjoy doing the activities and ensure timely completion of the given assignments.



Academic Coordinator

**DELHI PUBLIC SCHOOL, JAMMU**

**SESSION-2023-24**

**HOLIDAY HOMEWORK**

**CLASS-X**

**SUBJECT: ENGLISH**

**1. Fun with Proverbs.**

**Choose any one of the following proverbs and depict it in a creative manner.**

1. The pen is mightier than the sword.
2. No pain no gain.
3. Birds of a feather flock together.

**How to do: Use your imagination to convert the proverbs into an artistic representation (pictures/painting) on Scrapbook using colors and motifs.**

**The presentation should be self- explanatory.**

**2. Collage- Making**

**Make a collage on any one of the following social issues.**

- a. Save the Girl Child/Stop Female Foeticide
- b. Save the Environment
- c. Protect Endangered Species
- d. Empathy for the Differently-Abled
- e. Educate the Girl Child
- f. Stop Child Labour
- h. Cancer Prevention

**How to do:** Use powerful visuals/photographs/ cuttings from newspapers and/or magazines and sayings/quotes/slogans made from alphabets/whole slogans or quotes to make the collage.

**Where to do: On scrapbook**

**NOTE:**

Submit your Holiday Homework to your respective Subject Teacher by 14th July,2022. Your submission will carry 10 marks. (5 marks for content and research, 3 marks for presentation and 2 marks for creativity).

दिल्ली पब्लिक स्कूल जम्मू  
सत्र (2023.2024 )  
(ग्रीष्मावकाश कार्य)

विषय हिंदी

कक्षा-दसवीं

कला एकीकृत परियोजना (I)  
समाज को सीख देती दंतकथाएँ

अदमान-निकोबार द्वीपसमूह लक्षद्वीप , जम्मू व कश्मीर का तुलनात्मक अध्ययन निम्नलिखित बिंदुओं के आधार पर करते हुए एक आकर्षक लघु विश्वकोष (encyclopaedia) बनाइए –

- रहन-सहन
- पर्यटन
- कला व संस्कृति , आभूषण
- आदिमानव जाति तथा उसका इतिहास?

कला एकीकृत परियोजना (II)

(कोई तीन )

- 1) जम्मू-कश्मीर और गुजरात की सांस्कृतिक विरासत की विशेषताओं के बारे में संक्षेप में लिखिए।
- 2) जम्मू-कश्मीर और गुजरात के परम्परागत वेशभूषा और स्थानीय वस्त्रों के बारे में विस्तृत जानकारी दीजिए।
- 3) जम्मू-कश्मीर और गुजरात के महत्वपूर्ण श्रद्धालु स्थलों के बारे में लिखें और उनके महत्व का वर्णन कीजिए।
- 4) जम्मू-कश्मीर और गुजरात के प्रमुख सांस्कृतिक कार्यक्रमों और त्योहारों के बारे में जानकारी प्राप्त करें और इनका महत्व विस्तार से समझाएं।
- 5) जम्मू-कश्मीर और गुजरात के लोकनृत्यों और संगीत के बारे में विस्तृत विवरण दीजिए।

अनुच्छेदलेखन-

(1) प्लास्टिक की दुनिया

- कृत्रिम पदार्थ
- उपयोग
- गुण अवगुण
- जिम्मेदारी

(2) कैसा शासन बिन अनुशासन

- अनुशासन की आवश्यकता
- अनुशासनहीनता के कारण

(3) हिंदी हमारी पहचान

- मातृभाषा के रूप में
- संपर्क भाषा के रूप में

### पत्र लेखन-

- (1) आपसे अपने बचतखाते की चेकबुक खो गई। इस संबंध में बैंक प्रबंधक को उचित कार्यवाही करने के लिए पत्र लिखिए।
- (2) आपके विद्यालय में कैंटीन की व्यवस्था करवाने के लिए प्रधानाचार्य को पत्र लिखिए।
- (3) आपके मुहल्ले की नालियों की ठीक से सफाई नहीं हो रही है। इसकी शिकायत करते हुए नगर निगम के स्वास्थ्य अधिकारी को पत्र लिखिए।

### विज्ञापन लेखन-

- (1) आपके पिता जी अपनी पुरानी कार बेचना चाहते हैं। कार संबंधी संपूर्ण जानकारी देते हुए एक आकर्षक विज्ञापन तैयार कीजिए।
- (2) किसी होमैपैथिक दवा का विज्ञापन तैयार कीजिए।
- (3) शहर में नया स्कूल खुला है कक्षा नवीं तथा दसवीं के दाखिले शुरू हैं। विज्ञापन तैयार कीजिए।

### व्याकरण-

- (1) समास (प्रत्येक भेद के 10-10 उदाहरण)
- (2) रचना के आधार पर वाक्य रूपांतरण (प्रत्येक भेद के 10-10 उदाहरण)

पाठ्यक्रम ; श्वेत तमअपेपवदद्ध

स्पर्श - कबीर , मीरा के पद

बड़े भाई साहब , डायरी का एक पन्ना , ततौरा -वामीरो कथा

संचयन -हरिहर काका

कृपया उपर्युक्त पाठ्यक्रम को अच्छे से पढ़िए तथा लिखकर अभ्यास कीजिए।

### निर्देश -

- सारा कार्य A4 Sheet पर कीजिए।
- रचनात्मक कार्य करते हुए प्रारूप का ध्यान अवश्य रखिए।
- ततौरा -वामीरो कथा स्वाध्ययन के लिए दिया गया है।
- कृपया लेख का ध्यान अवश्य रखिए।

**DELHI PUBLIC SCHOOL JAMMU**  
**SESSION:2023–2024**  
**HOLIDAYS HOMEWORK**

**CLASS: X**

**SUBJECT: MATHEMATICS**

It's summer time, school vacation  
has begun , Its time to play and  
have fun INDOORS. Time to spend  
with kith and kin

*Happy Holidays*

**1. Solve all questions**  
**Topic: Polynomials**

Q1. If  $(x + k)$  is a factor of  $2x^2 + 2kx + 5x + 10$ , find  $k$ .

Q2. If  $\alpha$  and  $\beta$  are the zeroes of the polynomial  $p(x) = 3x^2 - 5x + 6$ , find

(i)  $(\alpha / \beta) + (\beta / \alpha)$  (ii)  $\alpha^3 + \beta^3$

Q3. Find a polynomial whose zeros are squares of the zeroes of the polynomial  $3x^2 + 6x - 9$ .

Q4. If  $\sqrt{1}$  is one of the zeroes of the polynomial  $p(x) = 7x - x^3 - 6$  find its other zeroes.

Q5. Find the quadratic polynomial, sum and product of whose zeroes are 2 and  $-1$  respectively. Q7. If the sum of the zeroes of the quadratic polynomial  $kx^2 + 2x + 3k$  is equal to their product, find  $k$ .

Q6. Find a polynomial whose zeroes are 2, 1 and  $-1$ . What is its degree?

Q7. Find the polynomial whose zeroes are reciprocals of the zeroes of the polynomial  $2x^2 + 3x - 6$ .

Q8. Find the ratio of the sum and product of the zeroes of the polynomial  $5x^2 + 2x - 10$ .

Q9. If  $\alpha, \beta$  are the zeroes of the cubic polynomial  $p(x) = 2x^2 + 5x + k$ , satisfying the relation  $\alpha^2 + \beta^2 + \alpha\beta = 21/4$ . Find the value of  $k$ .

Q10. Find all the zeroes of the polynomial  $p(x) = 4\sqrt{3}x^2 + 5x - 2\sqrt{3}$  and verify the relationship between the zeros and the coefficient.

## Topic: Pair of Linear Equations in Two Variables

Q1. Determine the value of  $k$  for which the given system of equations has unique solution: a)  $2x - 3y = 1$ ;  $kx + 5y = 7$       b)  $4x - 5y = k$ ;  $2x - 3y = 12$

Q2. Find the value of  $k$ , for which the system of equations has infinitely many solutions.

a)  $2x - 3y = 7$  ;  $(k+2)x - (2k+1)y = 3(2k-1)$

b)  $x + (k+1)y = 5$  ;  $(k+1)x + 9y = 8k - 1$

Q3. Find the value of „ $k$ “ so that the following system of equations has no solution. a)  $(3k+1)x + 3y - 2 = 0$  ;  $(k^2+1)x + (k-2)y - 5 = 0$

Q4. Solve the following system of equations by any algebraic method.

a)  $x + y = 3$ ,  $2x + 5y = 12$       c)  $x - 2y - 5 = 0$ ,  $3x + 5y - 6 = 0$

b)  $2x - 3y + 13 = 0$ ,  $3x - 2y + 12 = 0$ .      d)  $3x - 4y - 1 = 0$ ,  $2x - y + 5 = 0$

Q5. Represent the following equations on the graph and determine the vertices of the triangle, so formed .

a)  $2y - x = 8$ ,  $5y - x = 14$ ,  $y - 2x = 1$

b)  $y = x$ ,  $y = 0$ ,  $3x + 3y = 10$

Q6. Draw the graph of  $x - y + 1 = 0$  and  $3x + 2y - 12 = 0$ . Calculate the area of the triangle bounded by these lines and the  $x$ -axis.

Q7. Solve the system of equations  $x - y = 1$ ,  $2x + y = 8$  graphically .Shade the area bounded by these lines and  $x$ -axis. Also find its area.

Q8. A man has belts and handkerchiefs which are together 40 in number. If he had 5 more handkerchiefs and 5 less belts, the number of handkerchiefs becomes four times the number of belts. Find the original number of each.

Q9. The age of father is twice the sum of ages of his two children. Ten years hence, the age of father will be three-quarter of the sum of the ages of his children then. Find the present age of father.

Q10. The numerator of a fraction is 4 less than its denominator. If the numerator is decreased by 2 and the denominator is increased by 1, the denominator becomes 8 times its numerator. Find the fraction.

## 2. Prepare a mind map of the topic as per given Roll no.

Roll no. – 1 to 15 – Polynomials

Roll no. – 16 to 25 – Linear Equation in two variables

Roll no. – 26 to 40 – Introduction to trigonometry Geometry

**Where to do** : In A3 size sheet

### **Parameters :**

- a. Presentation
- b. Neatness
- c. Content

3. **NCERT** : Do all examples of Ch 2,3 & 8

**Where to do:** In practice notebook

### **Parameters:**

- a. Content
- b. Accuracy

## NOTE:- Dear students

Please record a video of your activity , and the best one will be displayed in class.

## 4. Perform the activity given below.

### Activity 1

## System of linear equations

### Objective

To obtain the conditions for consistency of a system of linear equations in two variables by graphical method.

### Pre-requisite knowledge

Plotting of points on a graph paper

### Procedure

1. Take the first pair of linear equations in two variables of the form

$$a_1x + b_1y + c_1 = 0$$

$$a_2x + b_2y + c_2 = 0$$

e.g.  $2x - 3y = 3$

$$3x - 4y = 5$$

2. Obtain a table of ordered pairs  $(x, y)$ , which satisfy the given equation. Find at least three such pairs for each equation.

e.g. For  $2x - 3y = 3$

$x$	0	3	6
$y$	-1	1	3

For  $3x - 4y = 5$

$x$	-1	-5	7
$y$	-2	-5	4

3. Plot the graphs for the two equations on the graph paper as shown in Fig 1(a).

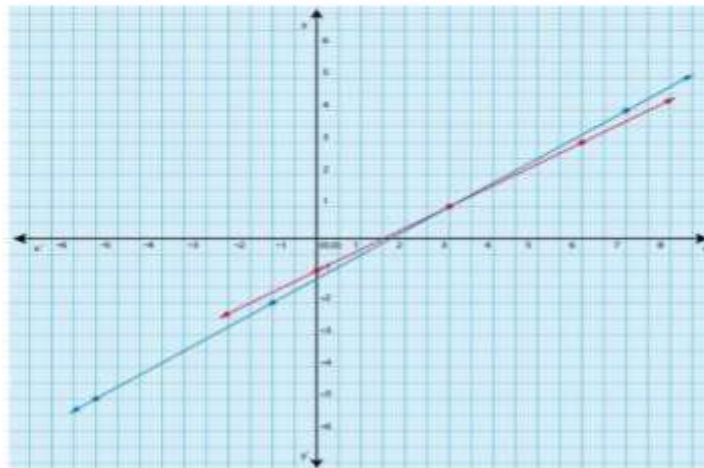


Fig 1(a)

### Materials required

3 graph papers,  
ruler,  
pencil.



4. Observe if the lines are intersecting, parallel or coincident and note the following:

$$\frac{a_1}{a_2} = \quad \quad \quad \frac{b_1}{b_2} = \quad \quad \quad \frac{c_1}{c_2} =$$

5. Take the second pair of linear equations in two variables,  
e.g.  $6x + 10y = 4$ ,  $3x + 5y = -11$
6. Repeat the steps from 2 to 4.
7. Take the third pair of linear equations in two variables  
e.g.  $x - 2y = 5$ ,  $2x - 4y = 10$
8. Repeat the steps from 2 to 4.
9. Fill in the following observation table

Type of lines	$\frac{a_1}{a_2}$	$\frac{b_1}{b_2}$	$\frac{c_1}{c_2}$
Intersecting			
Parallel			
Coincident			

10. Obtain the condition for two lines to be intersecting, parallel or coincident from the observation table by comparing the values of  $\frac{a_1}{a_2}$ ,  $\frac{b_1}{b_2}$  and  $\frac{c_1}{c_2}$ .

#### Observations

The student will observe that for intersecting lines  $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$ ,

for parallel lines  $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$  and for coincident lines  $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$ .

#### Learning outcomes

The student will learn that some pairs of linear equations in two variables have a unique solution (intersecting lines); some have infinitely many solutions (coincident lines) and some have no solution (parallel lines).

#### Remarks

1. The teacher will explain that when a system of linear equations has solution (whether unique or not), the system is said to be consistent; when the system of linear equations has no solution, it is said to be inconsistent.
2. The teacher may consider additional examples in which some of the co-efficients are zero.

**DELHI PUBLIC SCHOOL JAMMU**

**SESSION-2023-24**

**HOLIDAY HOMEWORK**

**Class X- Biology Holiday Homework**



### **The Global Impact of Respiratory Diseases.**

This is to raise awareness among the people about to protect their lungs by being physically active, stop smoking, reducing air pollution and getting vaccinated.

#### Task-1

***‘Respiratory diseases impose an immense worldwide health burden’.***

Find out the **five most common respiratory diseases** which are the causes of severe illness and death worldwide. Paste pictures and fill the necessary information in a table.

Format is given below:

S.No	Respiratory disease (Name)	Scope of the disease	Prevention	Treatment	Control and Elimination
1					
2					
3					
4					
5					

Source of Information for the Topic:

It can be a Newspaper clipping, an article from a magazine or an Internet.

You have to write the reference of source of information you will use for your holiday homework.

Task-2

Draw and design a catchy caption for **World Lung Day**.

Click a picture of it and paste it at the bottom of your Holiday Homework.

**NOTE:** *Holiday Homework should be done manually and the project should be handwritten and done on a file with a proper acknowledgement, certificate and bibliography.*

**DELHI PUBLIC SCHOOL, JAMMU**

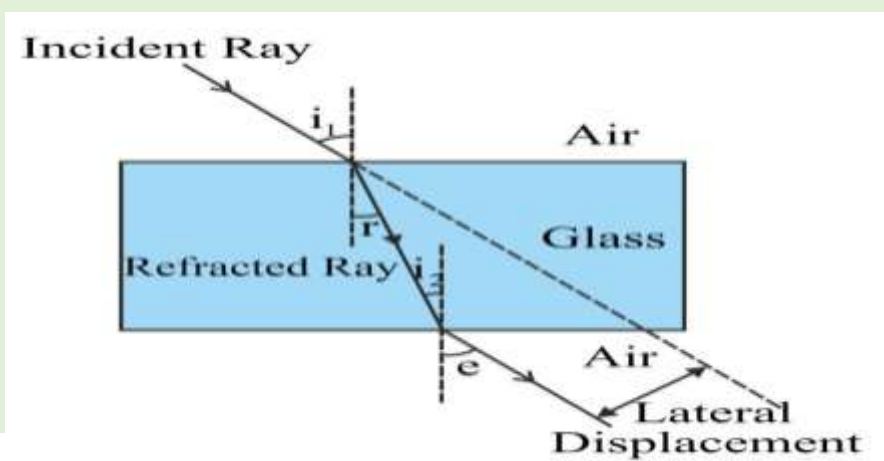
**Session (2023-24)**

## **HOLIDAY HOMEWORK**

**Class: X**

**Subject: PHYSICS**

Perform an activity of Refraction of light through a rectangular glass slab and prepare a project report.



The project report should include;

1. Observations of light ray passing through the slab.
2. Measure the angle of incidence and angle of refraction.
3. Explain how lateral displacement varies with the change in angle of incidence?
4. Observe what happens when incident light falls normal to the interface of the slab.

Link for the above activity: <https://you.be/t7kFpEvLtjM>

**Note:** *The activity should be done manually and the project should be handwritten and done on a file with a proper acknowledgement, certificate and bibliography.*

**DELHI PUBLIC SCHOOL, JAMMU**  
**SESSION-(2023-24)**  
**HOLIDAYS HOMEWORK**

**CLASS-X**

**SUBJECT- CHEMISTRY**

- ❖ **REPORT: MAKE A REPORT ON TYPES OF CHEMICAL REACTIONS WITH SUITABLE EXAMPLES OF EACH.**
- ❖ **ACTIVITY: PREPARE YOUR OWN INDICATOR**



- Crush beetroot in a mortar.
- Add sufficient water to obtain the extract.
- Filter the extract by the procedure learnt by you in earlier classes.
- Collect the filtrate to test the substances you may have tested earlier.
- Arrange four glass containers and label them as A, B, C and D. Pour 2 mL each of lemon juice solution, soda-water, vinegar and baking soda solution in them respectively.
- Put 2-3 drops of the beetroot extract in each glass container and note the colour change if any.
- Write your observations in a Table.
- Prepare indicators by using other natural materials like coloured petals of some flowers such as Petunia, China Rose and Turmeric.
- Use these indicators along with above mentioned acids and bases to design handkerchiefs, cushion covers, table mats for your home using TIE and DYE technique.

**NOTE:**

- ❖ The observations of the activity and the project should be handwritten and done on a file\* (A4 size sheets) with proper acknowledgement, certificate and bibliography.
- ❖ Submit your Holiday Homework to your respective Subject Teacher by July, 2023. Your submission will carry 10 marks.



## Delhi Public School, Jammu

Session: 2023-2024

Holiday Home Work

Class: X

Subject: Social Science



1. Project on Consumer Rights and Consumer Movement in India.

The project should include following points

- i) Need for protecting the consumers
- ii) Consumer Movement
- iii) Consumer Protection Act, 1986
- iv) Consumer Rights.

2. Write a case history of a consumer who has fought a consumer right case and was given Justice by the Consumer Court.

For reference you can use your Economics Textbook (chapter-5 Consumer Rights)

**Note: The project should be handwritten and done on a file with proper acknowledgement, certificate and bibliography.**



**Topic:** Make a project on ‘How a sense of collective belonging was built up in India. A comparison with other nations, e.g., France, Vietnam etc’.

**Objectives :** To create awareness of factors that develop a sense of collective belonging among people of different communities, regions or language groups.

**Skills developed :** Critical thinking, empathy, communicative skills, planning, problem solving.

**Note:** The project should be handwritten and done on a file with proper acknowledgement, certificate and bibliography.

**Note -**

1. Submit your Holiday Homework to your respective Subject Teacher by 22th of July , 2023. Your submission will carry 4 marks.( 2 marks- Subject Relevance & Research, 2 marks- Handwriting).

2. Homework/ Project Presentation (5-6mins) to be held during class after holidays. It will carry 6 marks.

(2 marks- Confidence, 2 marks- Subject Clarity, 2 marks- Presentation Skills).