

ARMY PUBLIC SCHOOL SHANKAR VIHAR
SUMMER HOLIDAY HOMEWORK CLASS X (2025-26)

ENGLISH:

1. Poetry Poster Presentation-

Choose a poem from your literature reader- First Flight and create a visual poster that reflects: The central idea/theme of the poem, use of symbolism, imagery and metaphor from the poem in the artwork. The poster can be digital or in a poster form.

2. Creative Writing Portfolio –

Research and write a 200 word bio-sketch on Baichung Bhutia , a former captain of the Indian Football Team and a notable personality from Sikkim . Do include some pictures highlighting his life and achievements.

3. Letter writing questions to be done in the English notebook-

- a) You are dismayed over the rising cases of bullying in schools and being a concerned citizen and parent would like to suggest some measures to overcome the same. As Prateek/Parinita, a resident of 65/2, Paschim Vihar, New Delhi, write a letter to the editor of 'The Delhi Times' voicing your concern.
- b) You are disturbed by the increasing noise pollution in your locality. Write a letter to the editor of a national daily highlighting the issue and suggesting solutions. You are Madhuri/Madan of 301, Akshardham Apartments, Meerut.
- c) You want to join a summer camp in your city that has been organised by the Rotary Club. Write a letter to the organizer asking about the schedule, activities, and fee structure. You are Varun/Vishakha of 7B, Indira Nagar, Indore.

HINDI:1. पोर्टफोलियो गतिविधि :-

A-4 साइज शीट पर 'समास और उसके भेदों' की परिभाषा देते हुए इसे एक वृक्ष का आकार दीजिए, जिसमें भेदों को शाखा के रूप में तथा उदाहरणों को पत्तियों के रूप में प्रस्तुत कीजिए । यह कार्य विभिन्न रंगों का प्रयोग करते हुए सुसज्जित कीजिए।

2. शब्दकोश निर्माण गतिविधि -

प्रत्येक विद्यार्थी निम्नलिखित बिंदुओं को ध्यान में रखते हुए शब्दकोश का निर्माण करेंगे-

- i) वर्णमाला (स्वर और व्यंजन) के क्रमानुसार शब्दकोश निर्मित करें।
 - ii) A5 आकर की शीट का उपयोग करें।
 - iii) प्रत्येक वर्ण के लिए कम-से-कम दो पृष्ठों का उपयोग करें।
 - iv) प्रत्येक दिन किसी भी वर्ण से संबंधित पाँच नवीन शब्दों को अर्थ सहित अपने शब्दकोश में शामिल करें।
 - v) शब्दकोश में लगभग 150 शब्दों का संग्रह करना अनिवार्य है।
 - vi) शब्दकोश का मुख पृष्ठ (कवर पेज) सुंदर एवं आकर्षक होना चाहिए।
- (नोट -शब्दकोश के निर्माण एवं शब्द-संग्रह करने हेतु आप अपनी पाठ्यपुस्तक के अलावा समाचार पत्र, लेख, कहानी आदि पुस्तकों की सहायता ले सकते हैं।)

कार्यपत्रक

प्र०) निम्नलिखित हिन्दी कार्यपत्रक के सभी प्रश्नों को अपनी हिन्दी उत्तरपुस्तिका में हल कीजिए। सभी प्रश्न अनिवार्य हैं।

1. निम्नलिखित प्रश्नों के रेखांकित पदों का पदबंध भेद लिखिए :-

- i. लोहे की काली, मजबूत अलमारी खोलो।
- ii. आज़ाद हिन्द फौज में बहुत सैनिक थे।
- iii. तुम जैसा मस्तमौला व्यक्ति मिलना कठिन है।
- iv. वह माली से आँख बचाकर चोरी से आम तोड़ रहा था।
- v. नदी में पत्थर बहते चले जा रहे थे।
- vi. विदेश से आए हुए अतिथियों में से कुछ शाकाहारी हैं।
- vii. घर के कोने में बैठा आदमी संदिग्ध है।
- viii. स्वागतार्थ आए लोगों से घिरे श्रीकृष्ण ने नगर में प्रवेश किया।
- ix. चौपाल पर खड़ी महिला अजनबी है।
- x. जनक नंदिनी सीता ने भी चौदह वर्ष का वनवास झेला था।
- xi. कल की अपेक्षा आज गर्मी अधिक है।
- xii. आज उसने जल्दी खाना खा लिया है।
- xiii. बिना सोचे-समझे तुम कोई कार्य क्यों करते हो ?
- xiv. वह बिना पलक झपकाए टी० वी० देख रहा था।
- xv. पांडव पुत्र युधिष्ठिर सहित चारों भाइयों ने तेरह वर्ष का वनवास झेला था।

2. निम्नलिखित मुहावरों को निर्देशानुसार हल कीजिए :-

क) ऐरा-गैरा नत्यू खैरा (अर्थ लिखकर वाक्य बनाइए)

ख) भनक तक न लगना (अर्थ लिखकर वाक्य बनाइए)

ग) हड़प लेना (अर्थ लिखकर वाक्य बनाइए)

घ) लोहे के चने चबाना (अर्थ लिखकर वाक्य बनाइए)

ङ) आसमान सिर पर उठा लेना (अर्थ लिखकर वाक्य बनाइए)

च) कान खड़े होना (अर्थ लिखकर वाक्य बनाइए)

छ) दाँतों पसीना आना (अर्थ लिखकर वाक्य बनाइए)

ज) सीलिंग पर कोर्ट के आदेश से व्यापारियों के _____ हुई है। (रिक्त स्थान में सही मुहावरा भरिए)

झ) जब बाज़ार में सामान बेचने निकलोगे तो _____ होगा। (रिक्त स्थान में सही मुहावरा भरिए)

ञ) बड़े भाई का कर्तव्य है कि वह छोटे भाई को _____ दे। (रिक्त स्थान में सही मुहावरा भरिए)

ट) व्यापार में _____ का गुर जानने वाले ही कमाकर खा पाते हैं। (रिक्त स्थान में सही मुहावरा भरिए)

ठ) जो भी लिखो, काम की बात लिखो। यूँ बेकार में _____ और वक्त बर्बाद न करो। (रिक्त स्थान में सही मुहावरा भरिए)

ड) समारोह में संगीत का ऐसा समां बँधा कि श्रोता _____बैठे। (रिक्त स्थान में सही मुहावरा भरिए)

ढ) मैंने यूँ ही नौकरी के लिए आवेदन कर दिया। और कोई आवेदक पहुँचा नहीं। मुझे रख लिया गया। सच कहूँ बस _____ गया। (रिक्त स्थान में सही मुहावरा भरिए)

ण) इस विपत्ति के समय में उसकी असफलता की चर्चा करके तुमने उसके _____ दिया है। (रिक्त स्थान में सही मुहावरा भरिए)

3. अनुच्छेद लेखन :- निम्नलिखित विषयों में से किसी एक विषय पर दिए गए संकेत बिन्दुओं के

आधार पर 100 शब्दों में अनुच्छेद लिखिए-

क) उपभोक्ता जागरूकता (संकेत बिंदु :- •भूमिका • पाश्चात्य संस्कृति•भारतीय संस्कृति)

ख) जब मैंने प्रकृति संरक्षण अभियान में भागीदारिता निभाई.....(संकेत बिंदु :- •भूमिका • अभियान का प्रचार-प्रसार व मुख्य कार्य •संस्थाओं का योगदान •सीख)

➤ नोट-

- 'हिंदी साहित्य एवं व्याकरण' में अभी तक के पढ़ाए गए सभी पाठों का कार्य हिंदी की कॉपी में पूर्ण करें एवं उन्हें याद भी करें।

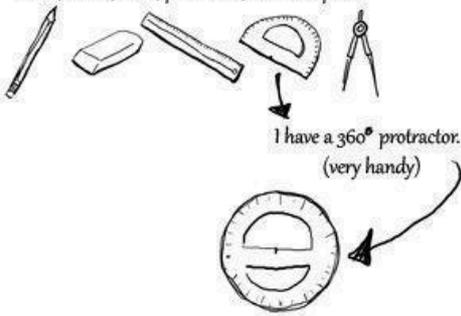
MATHS:

1. Portfolio activity (to be done in practical file)

A mandala, traditionally a circular figure representing the universe offers a canvas where symmetry, balance, and intricate patterns converge. Create the pattern given below using a compass and embrace the mathematical beauty in mandala art by completing the design.

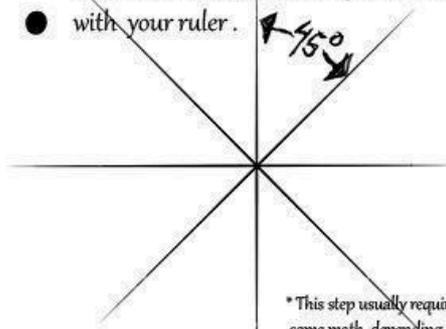
MAPPING OUT MANDALAS

First thing you need are the right tools for the job:
Pencil, eraser, ruler, protractor, and compass.



1.

Choose a center point, use your protractor to map out evenly spaced points around it. *
Connect these points through the center with your ruler.

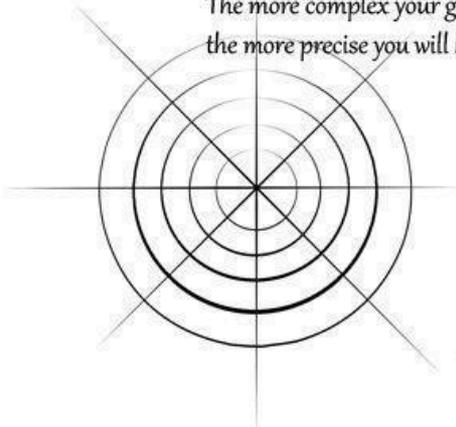


* This step usually requires some math, depending on how many repetitions you want. I kept it simple with 8 sections, meaning a line every 45 degrees.

$$\begin{array}{r} 45 \\ 8 \overline{) 360} \end{array}$$

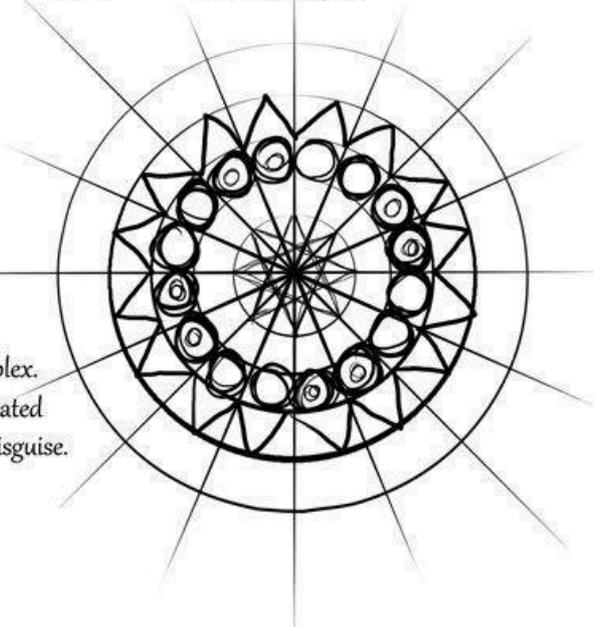
2.

Use your compass to map circles emanating from the center. This creates a radial grid.
Make your grid as complex as desired. The more complex your grid is- the more precise you will be.



3.

Experiment by filling the grid with repeating shapes: spirals, triangles, ziz-zags, etc. Pencil first, then ink, paint, or what have you.



Start with basic shapes and get more complex.
Remember: any figure that seems complicated is, in truth, just a lot of simple shapes in disguise.

2. Worksheet on pair of linear equations in two variables to be done in math register .(attached)

3. Worksheet on quadratic equations to be done in math register(attached)

4. Practical activity 1:

Objective: Find the zeroes of a quadratic polynomial graphically(to be done in activity file as explained in the class)

5. Practical activity 2:-

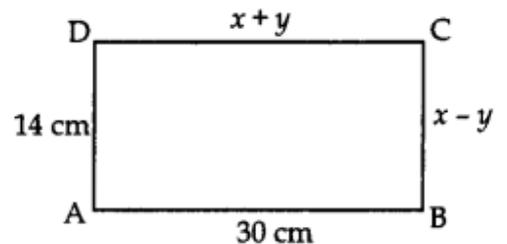
Objective:-To verify the conditions for consistency for a pair of linear equations in two variables graphically(to be done in activity file as explained in the class)

Army Public School Shankar Vihar
Worksheet Linear Equations in Two Variables
SECTION A

- 1) The pair of the equations $y = 0$ as well as $y = -7$ have
 (A) one solution (B) two solutions (C) infinitely many solutions (D) no solution
- 2) The pair of the equations $x = a$ as well as $y = b$ graphically shows lines that are
 (A) parallel (B) intersecting at (b, a) (C) coincident (D) intersecting at (a, b)
- 3) For which values of a and b , would the following pair of the given linear equations consist of infinitely many solutions?
 $x + 2y = 1$ and $(a - b)x + (a + b)y = a + b - 2$
- 4) Find the relation between p and q if $x = 3$ and $y = 1$ is the solution of the pair of equations
 $x - 4y + p = 0$ and $2x + y - q - 2 = 0$
- 5) Determine whether the following system of linear equations is inconsistent or not.
 $3x - 5y = 20$ $6x - 10y = -40$
- 6) Draw the graphs of the following equation and find the solution:-
 $2x - y = 1$, $x + 2y = 13$
- 7) Solve for x and y :
 $6(ax + by) = 3a + 2b$ $6(bx - ay) = 3b - 2a$
- 8) Determine the value of m and n so that the following pair of linear equations have infinite number of solutions.
 $(2m - l)x + 3y = 5$; $3x + (n - l)y = 2$
- 9) Solve the following pair of equations:
 $\frac{4}{x} + 3y = 8$; $\frac{6}{x} - 4y = -5$.
- 10) Solve the following pair of equations for x and y
 $\frac{ax}{b} - \frac{by}{a} = a + b$; $ax - by = 2ab$
- 11) For what value of " k " equations $2x + 2y + 2 = 0$ and $4x + ky + 8 = 0$ will have a unique solution.

SECTION B(NUMBERS AND RELATIONS)

- 12) In Fig., ABCD is a rectangle. Find the values of x and y .
- 13) In a two digit number, the ten's digit number is three times the unit's digit. When the number is decreased by 54, the digits are reversed. Find the number.
- 14) A number consists of two digits. When it is divided by the sum of the digits, the quotient is 6 with no remainder. When the number is diminished by 9, the digit are reversed.
- 15) A fraction is such that if the numerator is multiplied by 3 and the denominator is reduced by 2 we get $\frac{3}{5}$ but if the numerator is increased by 4 and the denominator is doubled we get $\frac{5}{14}$. Find the fraction.



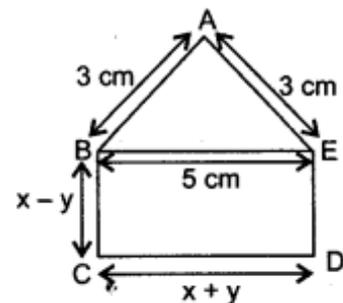
- 16) The sum of the numerator and denominator of a fraction is 12. If the denominator is increased by 1, the fraction becomes $\frac{7}{6}$. Find the fraction.
- 17) A number consists of two digits whose sum is 5. When the digits are reversed, the number becomes greater by 9. Find the number. .
- 18) Seven times a 2 digit number is equal to 4 times the number obtained by reversing the digits. The difference between the digits is 1. Find the number.
- 19) In the triangle, sum of two angles is 90° which is the measure of the third angle. Also, the difference of these two angle is 10° , find the measure of these two unknown angles.
- 20) Ten years ago, mother was 12 times as old as her daughter and ten years, hence she will be twice as old as her daughter will be. Find the present ages.

SECTION C SPEED DISTANCE AND TIME

- 21) Points A and B are 50 km apart on a highway. A car starts from A and another car starts from B at the same time. If they traveled in the same direction, they meet in 5 hours but if they move towards each other they meet in 1 hour. Find their speeds.
- 22) The distance between two stations is 340 km. two trains start simultaneously from these stations on parallel tracks to cross each other. If the speed of one of them is greater than the other by 5 km/hr and the distance between the two trains after 2 hours of their start is 30 km, find the speed of each train.

SECTION D (AREA perimeter and COST)

- 23) . The area of a rectangle gets reduced by 10 square units if its length is reduced by 4 units and breadth is increased by 2 units. If we increase the length by 3 units and breadth by 4 units, the area is increased by 96 square units. Find the length and breadth of the rectangle.
- 24) A part of monthly Hostel charge is fixed and the remaining depends on the number of days one has taken food in the mess. When Swati takes food for 20 days, she has to pay 13000 as hostel charges whereas, Mansi who takes food for 25 days pays ? 3500 as hostel charges. Find the fixed charges and the cost of food per day.
- 25) In the figure, ABCDE is a pentagon with $BE \parallel CD$ and $BC \parallel DE$. BC is perpendicular to CD. If the perimeter of ABCDE is 21 cm, find the value of x and y.



SECTION E (CASE STUDY BASED QUESTIONS)

- 26) A test consists of 'True' or 'False' questions. One mark is awarded for every correct answer while $\frac{1}{4}$ mark is deducted for every wrong answer. A student knew

Type of Question	Marks given for correct answer	Marks deducted for wrong answer
True/False	1	0.25

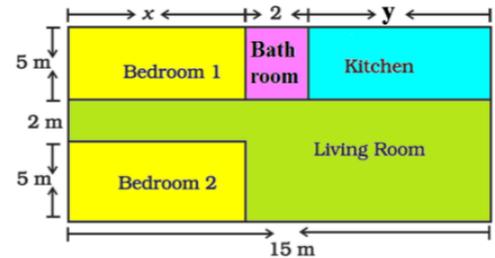
answers to some of the questions. Rest of the questions he attempted by guessing. He answered 120 questions and got 90 marks.

- 1.If answer to all questions he attempted by guessing were wrong, then how many questions did he answer correctly?
2. How many questions did he guess?

3. If answer to all questions he attempted by guessing were wrong and answered 80 correctly, then how many marks he got?
 4. If answer to all questions he attempted by guessing were wrong, then how many questions answered correctly to score 95 marks.

27) Amit is planning to buy a house and the layout is given below. The design and the measurement has been made such that areas of two bedrooms and kitchen together is 95 sq.m.

Based on the above information, answer the following questions:



- Form the pair of linear equations in two variables from this situation.
 - Find the length of the outer boundary of the layout.
 - Find the area of each bedroom and kitchen in the layout.
 - Find the area of living room in the layout.
 - Find the cost of laying tiles in kitchen at the rate of Rs. 50 per sq.m.
3. What will a person have to pay for travelling a distance of 30km?
 a) Rs.185 b) Rs.289 c) Rs.275 d) Rs.305

_____The End_____

QUADRATIC EQUATION **Class X Mathematics Worksheet**

- For what value of k, is 3 a root of the equation $2x^2 + x + k = 0$?
- If a and b are the roots of the equation $x^2 + ax - b = 0$, then find a and b
- If the equation $(1 + m^2)x^2 + 2mcx + c^2 - a^2 = 0$ has equal roots then show that $c^2 = a^2(1 + m^2)$.
- Find the discriminant of the quadratic equation $4\sqrt{2}x^2 + 8x + 2\sqrt{2} = 0$
- Find the value of k for which the equation $x^2 + k(2x + k - 1) + 2 = 0$ has real and equal roots
- Solve for x : $\frac{2x}{x-3} - \frac{1}{2x+3} + \frac{3x+9}{(x-3)(2x+3)} = 0$ $x \neq 3, \frac{-3}{2}$
- Solve the quadratic equation $2x^2 + ax - a^2 = 0$ for x.
- If -5 is a root of the quadratic equation $2x^2 + px - 15 = 0$ and the quadratic equation $p(x^2 + x) + k = 0$ has equal roots, then find the value of k.
- Find the roots of the quadratic equation $\sqrt{2}x^2 + 7x + 5\sqrt{2} = 0$
- If $x = \frac{2}{3}$ and $x = -3$ are roots of the quadratic equation $ax^2 + 7x + b = 0$, find the values of a and b.
- Find the value of p, for which one root of the quadratic equation $px^2 - 14x + 8 = 0$ is 6 times the other.
- Find the roots of the following quadratic equations :-
 (i) $\sqrt{2}x^2 + 7x + 5\sqrt{2} = 0$ (ii) $2x^2 - x + \frac{1}{8} = 0$ (iii) $4x^2 + 4\sqrt{3}x + 3 = 0$ (iv) $p^2x^2 + (p^2 - q^2)x - q^2 = 0$
- If $7x^2 - (2p^2 - 8)x + 16 = 0$ has two roots which are equal in magnitude but opposite in sign then find p.
- Find the values of k for each of the following quadratic equations, so that they have two equal roots.
 (i) $2x^2 + kx + 3 = 0$ (ii) $kx(x - 2) + 6 = 0$

- 15) If the roots of the quadratic equation $(a - b)x^2 + (b - c)x + (c - a) = 0$ are equal, prove that $2a = b + c$

AREA ,AGE AND NUMBERS

- 16) In a class test, the sum of Shefali's marks in Mathematics and English is 30. Had she got 2 marks more in Mathematics and 3 marks less in English, the product of her marks would have been 210. Find her marks in the two subjects.
- 17) The sum of two numbers is 15 and the sum of their reciprocals is 3. Find the numbers.
- 18) The hypotenuse of a right triangle is 1 m less than twice the shortest side. If the third side is 1 m more than the shortest side, find the sides of the triangle.
- 19) The sum of the areas of two squares is 468 m^2 . If the difference of their perimeters is 24 m, find the sides of the two squares.
- 20) Seven years ago Varun's age was five times the square of Swati's age. Three years hence, Swati's age will be two-fifth of Varun's age. Find their present ages.
- 21) A two digit number is such that the product of its digits is 18. When 63 is subtracted from the number, the digits interchange their places. Find the number.
- 22) If twice the area of a smaller square is subtracted from the area of a larger square; the result is 14 cm^2 . However, if twice the area of the larger square is added to three times the area of the smaller square, the result is 203 cm^2 . Determine the sides of the two squares.
- 23) If Zebra was younger by 5 years than what she really is, then the square of her age (in years) would have been 11 more than five times her actual age. What is her age now?

SPEED DISTANCE AND TIME

- 24) A motorboat whose speed in still water is 18 km/h, takes 1 hour more to go 24 km upstream than to return downstream to the same spot. Find the speed of the stream.
- 25) A plane left 30 minutes late than its scheduled time and in order to reach the destination 1500 km away in time, it had to increase its speed by 100 km/h from the usual speed. Find its usual speed.
- 26) A train travels 360 km at a uniform speed. If the speed has been 5 km/h more, it would have taken 1 hour less for the same journey. Find the speed of the train.
- 27) A train covers a distance of 300 km at a uniform speed. If the speed of the train is increased by 5 km/hour, it takes 2 hours less in the journey. Find the original speed of the train.
- 28) A journey of 192 km from a town A to town B takes 2 hours more by a ordinary passenger train than a super fast train. If the speed of the faster train is 16 km/h more, find the speeds of the faster and the passenger train.
- 29) Speed of a boat in still water is 15 km/hr. It goes 30 km upstream and returns back at the same point in 4 hours 30 minutes. Find the speed of the stream.
- 30) A motor boat whose speed is 18 km/hr in still water takes 1 hr more to go 24 km upstream than to return downstream to the same spot. Find the speed of the stream

CASE STUDY BASED QUESTIONS:-

- 31) An Auditorium was booked for School Annual Day Celebrations and the seats are arranged in a particular manner. The number of rows are equal to the number of seats in each row. When the number of rows was doubled and the number of seats in each row was reduced by 10, the total number of seats increased by 300.

Based on the above information answer the following questions

1. If x is taken as number of row in original arrangement which quadratic equation describe the situation? How many number of rows are there in the original arrangement?

2. How many seats are there in the auditorium in original arrangement? How many seats are there in the auditorium after re-arrangement?
- 32) Neeraj and Hrithik went to a nearby pizza shop for lunch. The shop had a unique method for the price allotment of pizza every day. The price of each pizza they prepare on a specific day is equal to 4 more than twice the total number of pizzas they produced on that day. The total cost of production on that day was 390 rupees.
- (a) Form a quadratic equation for the given situation .
- (b) Find the number of pizzas produced.
- (c) Find the cost of each pizza
- 33) Nidhi and Riya are very close friends. Nidhi's parents have a Maruti Alto. Riya's parents have a Toyota. Both the families decided to go for a picnic to Somnath Temple in Gujarat by their own car. Nidhi's car travels x km/h, while Riya's car travels 5km/h more than Nidhi's car. Nidhi's car took 4 hours more than Riya's car in covering 400 km
- (i) What will be the distance covered by Riya's car in two hours? How much time took Riya to travel 400 km?
- (ii) Write the quadratic equation describe the speed of Nidhi's car. What is the speed of Nidhi's car?
- (iii) find the speed of both cars.

_____THE END_____

SCIENCE:

1. Worksheet completion in notebook.

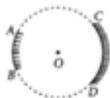
ARMY PUBLIC SCHOOL SHANKAR VIHAR

SCIENCE WORKSHEET FOR X

PHYSICS

1 The magnification produced by a spherical mirror is -3 . List four information you obtain from this statement about the mirror/ image.

2 AB and CD, two spherical mirrors, from parts of a hollow spherical ball with its centre at O as shown in the diagram. If arc AB is half arc CD, what is the ratio of their focal lengths? State which of the two mirrors will always form a virtual image of an object placed in front of it and why?



3 "A ray of light incident on a rectangular glass slab immersed in any medium emerges parallel to itself." Draw labelled ray diagram to justify the statement.

4 If the refractive index of glass for light going from air to glass is $\frac{3}{2}$, find the refractive index of air for light going from glass to air

5 Draw a ray diagram to show the path of the refracted ray in each of the following cases. A ray of light incident on a concave lens

(i) is parallel to its principal axis, (ii) is passing through its optical centre and (iii) is directed towards its principal focus

CHEMISTRY

1 (a) Explain two ways by which food industries prevent rancidity.

(b) Discuss the importance of decomposition reaction in metal industry with three points.

2 State the type of chemical reactions and chemical equations that take place in the following:

(i) Magnesium wire is burnt in air.

(ii) Electric current is passed through water.

3 (a) A solution of substance 'X' is used for white washing. What is the substance 'X'? State the chemical reaction of 'X' with water.

(b) Why does the colour of copper sulphate solution change when an iron nail is dipped in it?

4 Using a suitable chemical equation, justify that some chemical reactions are determined by:

(i) change in colour, (ii) change in temperature.

5 What is the colour of ferrous sulphate crystals? How does this colour change after heating?

BIOLOGY

1 State the role of the following parts in human respiratory system:

i) Nasal hairs

ii) Diaphragm

iii) Alveoli

2 Differentiate between digestion in the stomach and digestion in the small intestine.

3 List four conditions required for efficient gas exchange in an organism.

When we breathe out, why does the air passage not collapse.

4 Complete the following table:

Name of the gland	Secretion	Enzyme present
Salivary gland	-----	Salivary amylase
-----	Gastric juice	-----
-----	-----	No enzyme
Pancreas	-----	i) Trypsin ii)----- iii)-----

5. Draw a diagram of human respiratory system and label the following:

i) part where air is filtered by fine hair and mucus

ii) part which terminates in balloon – like structures

iii) balloon – like structures where exchange of gases takes place.

iv) part which separates chest cavity from abdominal cavity.

2. Design a “digital poster’ on ADOBE EXPRESS and showcase your understanding of various scientific concepts and their interconnections.

TAKE ANY ONE THEME OF YOUR CHOICE

Some suggested topics mentioned below:

Poster 1: Life Processes

Title: *“The Machinery of Life: Essential Life Processes”*

Visual Elements:

- Flowchart showing: Nutrition → Respiration → Transportation → Excretion
 - Diagrams of:
 - Human digestive system (for nutrition)
 - Mitochondria (for respiration)
 - Human heart and blood vessels (for transportation)
 - Kidney (for excretion)
 - Icons or symbols for energy (ATP), oxygen, carbon dioxide, food, and waste
Tagline: *“Survive. Sustain. Thrive.”*
-



Poster 2: Acids, Bases and Salts

Title: *“The Chemistry of Taste and Touch: Acids, Bases & Salts”*

Visual Elements:

- pH scale (with examples like lemon juice, soap, etc.)
 - Color-changing indicators (like litmus paper)
 - Simple chemical equations (e.g., $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$)
 - Common examples: vinegar, baking soda, table salt
Tagline: *“Neutralize to Balance!”*
-



Poster 3: Optics – Light

Title: *“Optics: The Science of Seeing”*

Visual Elements:

- Ray diagrams (reflection from a mirror, refraction through a lens)
- Human eye labeled diagram
- Dispersion of white light into a rainbow
- Real-life applications: spectacles, magnifying glass, camera
Tagline: *“Bend It, Reflect It, See It!”*

SOCIAL SCIENCE:

1. PROJECT WORK:

A. Students have to make project work of ten to Fifteen pages on ANY ONE of the following topics

- Consumer awareness.
 - Sustainable development.
 - Social issues
- B. The Project will have the following components
- Cover page
 - Page 1- should have the Project name; , Name of the Student, Class and section : Roll no.

- Page 2- Index
- Page 3- Acknowledgement
- Page 4-14- written material and pictures, maps, data representation.
- Page 15- Bibliography

C. Important instructions.

- The Project will be handwritten.
- Please use latest research, data ,articles etc.
- List all your sources including Article names , authors, URL incase of internet source in the Bibliography
- Please don't use plastic files.
- Design your own file cover with materials easily available at home.

2. GEOGRAPHY:

- "Let your creativity bloom like a kaleidoscope of colours as you embark on a journey to craft a poster that champions the noble cause of resource conservation. Transform your holiday homework into a masterpiece that not only dazzles the eyes but also inspires hearts to cherish and protect our precious planet."

COMP APP:

1. Complete the questions and answers of ch-1 and ch-2 in your computer notebooks.
2. Collect the information about any four Instant messaging apps and write it in the notebooks.
3. Write the steps to create a blog and paste the screenshots of the steps followed in the notebooks.
4. Perform online transactions for booking a movie ticket or bill payments on the secured websites. Write the steps for the same in your computer notebooks.
5. Download an antivirus on your computer and gather information about it.