Dr. Kitchlu Public Sen. Sec. School, Moga

Holidays Homework

Class – X

Session 2023-24

- *This is the time to relax in the cool comfort at home.*
- *Do some physical activity or exercises during morning or evening time.*
- *Spend some quality time with your parents and grandparents and learn something from them to enhance your knowledge.*

"Learning by doing is growing and succeeding"

- *Keeping this in mind we have planned some fun filled creative activities for you during the vacation.*
- *Try to work independently. However, take help & guidance from your parents wherever required.*
- *Make a time schedule to study for specific hours every day.*

Read the specifications given for each subject and complete the written work. Revise the work done in all the subjects.

Submit the holiday's homework on 6th July, 2023 at 9:00 A.M.

Instructions for Holidays H.W

1.   Worksheets given in pdf format can be printed or drawn on notebooks.

2.   Homework can be done on printed worksheets wherever space is available. A separate test note book may also be used for doing the work by making such worksheets at one's own.

3.   All pages of **Scrap Book** must be filled as directed by the teacher.

4.   Making of a chart paper.

   (a)   Use the size of chart paper as instructed by the subject teacher. (Note: half size chart paper for III-IV full size chart paper from V onwards.

   (b)   Use the Portrait/ Vertical side of the chart paper only.

   (c)   Draw the margin on the chart paper.

   (d)   Use full space of the chart paper for completing the task. Draw/Paste pictures of large size.

   (e)   Use any medium of colours as instructed by the teacher.

   (f)   Write all the details in correct spellings. Use big letters for writing.

   (g)   Write your name, roll no, class, section at the bottom of right side.

Colour of chart paper

- Science   –   Yellow
- Social Studies   –   Pink
- Maths   –   White
- Hindi   –   Green
- Punjabi   –   Black
- English   –   Blue

Instructions for making a Model

1. Do thorough research on the chosen topic to gather relevant information.

2. Make a list of all the materials needed for a model. Then collect the required items, ensuring that are easily available, economical and safe to use.

3. Clearly define the objectives of the working model and its introduction.

4. Take necessary precautions especially dealing with electricity or sharp objects.

5. The base (either cardboard or thermocole) of the model should be covered with a chart paper or use plyboard (in case of heavy Model)

6. Labelling should be done and it must be clearly visible. (Pla-card/ charts can be used)

7. For both working and Non- working models, prepare a written report on chart regarding concepts and principles associated with the topic. Use reasonably big letters to write on chart paper.

8. The explanation of the model should be informative, Knowledgeable, effective and in English only.

9. You can assemble the different components of the model in the school if it is bigger in size.

Subject – English

1. *Do 4 – 8 reading comprehensions in BBC (Pages 12 to 24)*
2. *Do 1- 4 letters to editor in BBC (Pages 134 to 141)*
3. *Do 1 – 6 sets of editing in BBC (Pages 278 , 279)*

Subject – Hindi

1. वर्ग पहेली

   इस वर्ग पहेली मैं से शरीर के अंगों से संबंधित मुहावरे ढूँढे:-

पा	गु	स्सा	ना	क	प	र	हो	ना
रा	ल	रो	खू	न	खौ	ल	ना	हा
च	ल	वे	म	य	ज्ञ	म	ब	थ
ढ़	त	ल	वे	चा	ट	ना	क	तं
ना	घ	झ	ड़	ट	म	ठ	ड	ग
मा	बा	ल	नो	च	ना	काँ	ढ़	हो
था	थे	प	र	ब	ल	प	ड़	ना
ठ	न	ज़	र	से	उ	त	र	ना
न	री	ढ़	टू	ट	ना	ठ	य	ञ
क	छ	थ	फ	र	ना	ना	ब	र
ना	न	ल	व	ष	ज	ञ	ज़	त्र

2. आपकी छोटी बहन छात्रावास में रहती है। उसकी पढ़ाई लिखाई के संबंध में उसे एक समय सारणी बनाने का सुझाव देते हुए और उस पर अमल करने की आवश्यकता का महत्व समझाते हुए पत्र लिखिए।

3. लघु कथा पूरी करें:-

   एक बार किसी गाँव से तीन भाई धन कमाने के लिए परदेस रवाना हुए। रास्ते में उन्हें उन्हीं की तरह यात्रा पर निकला किसान मिला, जिसके पास कुछ धन था। सभी भाइयों के मन में--------------।

4. निम्नलिखित पदबंध के भेद बताइए-

   (क) घर से भागा हुआ लड़का मिल गया।

   (ख) वह बाजार की ओर आया होगा।

   (ग) आपके मित्रों में से कोई समय पर नहीं पहुँचा।

   (घ) उसने साँप को पीट-पीटकर मारा

   (ङ) सूर्य डूबता जा रहा था।

   (च) प्यास बुझाने वाला पनघट आज सुनसान है।

   (छ) तकदीर की मारी मैं कहाँ जाऊँ?

   (ज) झूठ बोलने वाले लोग बेईमान होते हैं।

5. निम्नलिखित समस्त पदों का विग्रह कर भेद बताइए-

स्वर्गप्रास, चंद्रमुखी ,ग्रामगत, नीलगगन, सेनापति, ऋणमुक्त, पीतांबर, यथारुचि, नर-नारी,भीमार्जुन, गृहप्रवेश, महादेव, पंचरत्न, करोड़पति, सत्याग्रह।

6. रचना के आधार पर वाक्य भेद बताइए-

(क) पानी गिरा और पुस्तक गीली हो गई।

(ख) नीलू ने कविता लिखकर पुरस्कार प्राप्त किया।

(ग) शशि ऐसी महिला से झगड़ पड़ी जो ईर्ष्यालु थी।

(घ) बेटिकट बस से उतर जाएँ।

(ङ) यद्यपि प्रीति आई तथापि रुपए नहीं दे गई।

(च) समय हो गया परंतु ड्राइवर बस नहीं चला रहा।

Subject – Punjabi

ਲਿਖਣ ਕੌਸ਼ਲ

1) ਕਾਰਜ ਸੌਂਪਣੀ –

ਪੰਜਾਬੀ ਲੋਕ –ਗੀਤਾਂ ਦੇ ਰੂਪਾਂ ਦੇ ਅਧਾਰ 'ਤੇ

ੳ) ਸੁਹਾਗ (ਦੋ-ਤਿੰਨ)

ਅ) ਘੋੜੀਆਂ (ਦੋ –ਤਿੰਨ)

ੲ) ਸਿੱਠਣੀਆਂ (ਚਾਰ –ਪੰਜ)

ਸ) ਬੋਲੀਆਂ (ਚਾਰ– ਪੰਜ)

2) ਹੇਠ ਲਿਖੀ ਸ਼ਬਦ ਪਹੇਲੀ ਨੂੰ ਸਮਝੋ ਅਤੇ ਹੇਠ ਲਿਖੇ ਗਏ ਸਮਾਸੀ ਸ਼ਬਦ ਪੂਰੇ ਕਰੋ।

ਔ	ਪੁੱ	ਅ	ਪ	ਰ
ਤ	ਗੁ	ਗ	ਮੀ	ਦੇ
ਰ	ਹਾ	ਣ	ਰੋ	ਸ
ਕ	ਬੋ	ਨੀ	ਨੁ	ਗ
ਪ	ਤੀ	ਲ	ਰ	ਸ
ਰ	ਸੌਂ	ਮ	ਨ	ਰ

1) ਗੁਣ –   2)   ਪੀ –

3) ਰੋਗ –   4)   ਦੇਸ –

5) ਬੋਲ –   6)   ਲਾਭ –

7) ਗਰਮ –   8)   ਕੱਲੁ –

9) ਖੁਸ਼ੀ –   10)   ਜਨਮ –

3) ਤੁਹਾਡੇ ਸਕੂਲ ਵਿੱਚ 'ਮਦਰਜ਼ ਡੇ' ਮਨਾਇਆ ਗਿਆ ਹੈ।ਸਕੂਲ ਵਿੱਚ ਹੋਏ ਸਮਾਗਮ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿੰਦੇ ਹੋਏ, ਆਪਣੇ ਮਾਤਾ–ਪਿਤਾ ਜੀ ਨੂੰ ਚਿੱਠੀ ਲਿਖੋ। ਸਕੂਲ ਦੀ 'ਫੇਸਬੁੱਕ ਆਈ ਡੀ' ਤੋਂ ਤਸਵੀਰਾਂ ਲੈ ਕੇ ਚਿਪਕਾਓ।

4) 'ਜ਼ਫਰਨਾਮਾ' ਇਕਾਂਗੀ ਦੇ ਅਧਾਰ 'ਤੇ ਤਸਵੀਰਾਂ ਲਗਾ ਕੇ ਪਾਤਰ –ਚਿਤਰਨ ਕਰੋ।

ੳ) ਔਰੰਗਜ਼ੇਬ   ਅ) ਵਜ਼ੀਰ ਖ਼ਾਨ

ੲ) ਜ਼ੀਨਤ – ਉਨ –ਨਿਸ਼ਾ

ਨੋਟ –ਦਿੱਤਾ ਗਿਆ ਸਾਰਾ ਕਾਰਜ ਟੈਸਟ ਕਾਪੀ ਵਿੱਚ ਕੀਤਾ ਜਾਵੇ।

Subject – Mathematics

Completion of practical work

1. *To verify the distance formula by graphical method.*
2. *To verify basic proportionality theorem using parallel lines.*

Complete given worksheets of chapter 1, 2, 3, 4, 5 and 7.

Q1.   Show that is irrational. $\frac{1}{3-\sqrt{5}}$

Q2. $0.\overline{36} + 0.\overline{12}$ write in $\frac{p}{q}$ form.

Q3.   If the sum of the square of the zeroes of the quadratic polynomial $p(x) = x^2-8x+K$ is 40, then find the value of K.

Q4.   If the zeroes of the polynomial ax^2+bx+c are in the ratio 4:5, prove that $20 b^2 = 81ac$.

Q5.   If $\frac{2}{3}$ and -3 are zeroes of the polynomial ax^2+7x+b, then find the values of a and b.

Q6.   Solve   43x + 67y = - 24
               67x +43y = 24

Q7.   Solve by factorisation $3a^2x^2 + 8abx +4b^2=0$, a $\neq$ 0,

Q8.   Solve for x : $\sqrt{6x+7} - (2x-7) = 0$

Q9.   The angles of a triangle are AP. The greatest angle is twice the least, find all the angles of the triangles.

Q10.   Find the value of x when   2 + 6 + 10 + - - - -- + x =1800

Q11.   If the mid-point of the line segment joining the A (3,4) and B (K, 6) is P(x, y) and x + y – 10 = 0 find the value of K.

Q12.   The mid-points D, E and F of the sides AB, BC and CA of a triangle are (3, 4) , (8, 9) and (6, 7) respectively, find the co-ordinates of the vertices of the triangle.

Assertion – Reason

1. Both assertion and reason are true and reason is the correct explanation of assertion.

2. Both assertion and reason are true and reason is not correct explanation of assertion.

3. Assertion is true but the reason is false.

4. Assertion is false but the reason is true

1. Ass: if HCF of two natural numbers is 4, product of the numbers = 96 x 404 then their LCM = 9696

   Reason: HCF x product of natural numbers = LCM.

2. A: The sum or difference of a rational number and irrational number is always an irrational number.

   R : Negative of an irrational number.

3. A : $2x^2 - 5\sqrt{x} + 7$ is not a polynomial

   R : The highest exponent of the variable in a polynomial is called its degree.

4. A: If α and β are zeroes of the quadratic polynomial $x^2 - 5x - 3$, then the value of $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$ is $\frac{31}{3}$

   R : If α and β are zeroes of the polynomial $ax^2 + bx + c$, a $\neq$ 0 then $\alpha + \beta = \frac{-b}{a}$ and $\alpha\beta = \frac{c}{a}$

5. A : The pair of linear equations 4x-5y+7=0 and 12x − 15y +21 = 0 has infinitely many solutions.

   R: The pair of linear equations $a_1x+b_1y+c_1 = 0$ and $a_2x+b_2y+c_2=0$ has unique solution if $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$

6. A: the equation $(x+2)^3 = x^3 - 7x^2 + 3$ is a quadratic equation.

   R: All polynomial equations of degree 2 are called quadratic equations.

7. A: The quadratic equations $4x^2 +12x +15 = 0$ has no real roots.

   R: The quadratic equations $ax^2 +bx+c=0$ has real roots iff its 'discriminant = $b^2-4ac \geq 0$

8. A: The 37th term of the AP 3, $4\frac{1}{2}$, 6, $7\frac{1}{2}$ -------- is 57.

   R: In an AP with first term a and common difference d, the nth term is given by $a_n = a+ (n-1) d$

9. A: If the nth term of a sequence of numbers is $3n^2-2$, then the sequence is an AP.

   R: A sequence is not an AP. If its nth term is not a linear polynomial in n.

10. A: The sum of first 99 natural numbers is 4950.

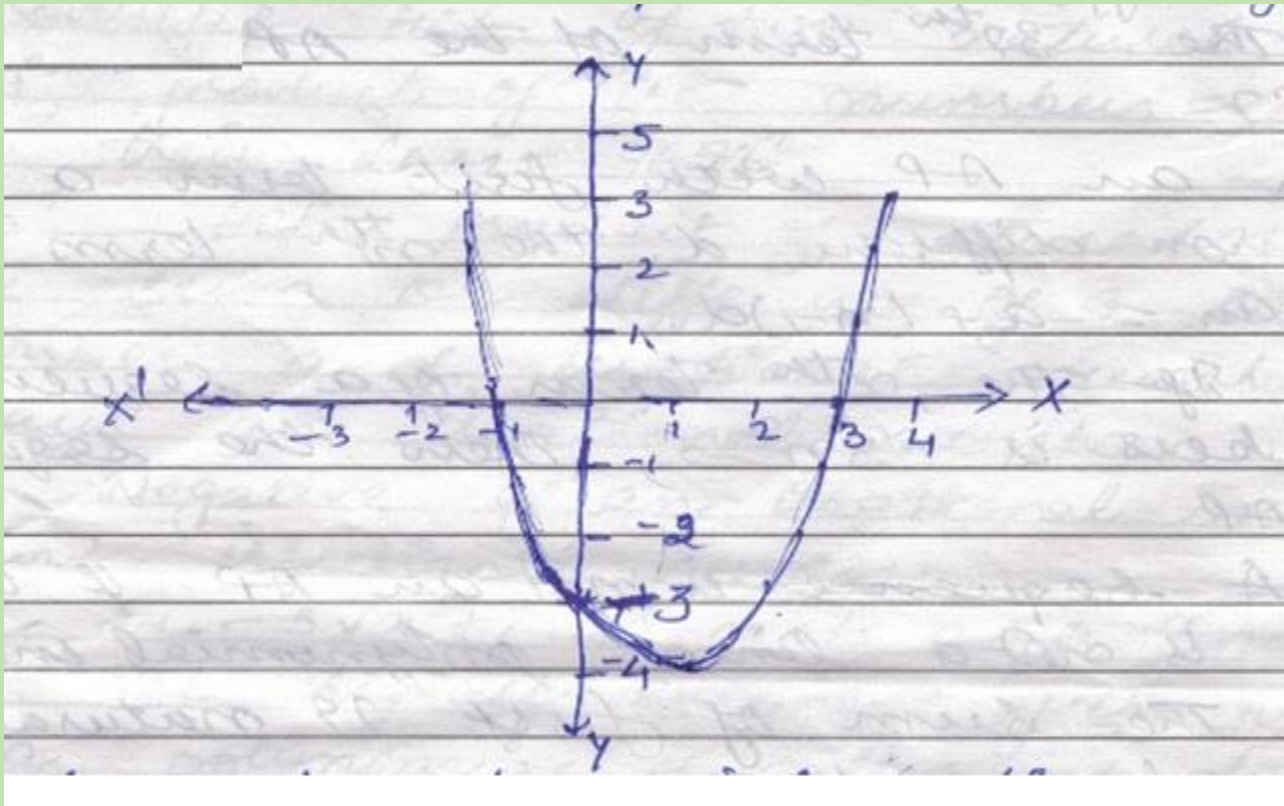   R: The sum of first n natural nos. is $\frac{n(n+1)}{2}$

Case Study – 1

A seminar is being conducted by an Educational organisation, where the participants will be educators of different subjects. The number of participants in Hindi, English and Maths are 60, 84 and 108 respectively. Based on the above information answer the following:

1. In each room the same number of participants are to be seated and all of them being in the same subject. Find the maximum number of participants that can be accommodated in each room.
2. What is the minimum number of rooms required during the event?

Case Study -2

Due to heavy storm an electric wire got bent as shown in the figure below. It followed a mathematical shape. Answer the following questions

Based on the above information, answer the following questions.

1. Name the shape in which the wire is bent.
2. How many zeroes are there for the polynomial representing the shape of the wire?
3. What will be the expression of the polynomial?

Case Study 3

Amber fort situated in Amer is one of the famous tourist destination. This fort was built by Mughals and is famous for its artistic style and designs. The entry ticket for the fort is Rs.150 for Indians and Rs.400 for foreigner. One day cashier found that 480 tickets were sold and Rs.134500 was collected.

Based on the above information, answer the following questions.

(i)   If x and y are the numbers of Indians and foreigners respectively, then find the equations which represent the above problem.
(ii) How many Indian visited the fort on the day?
(iii) How much amount would be collected if 300 Indians and 350 foreigners visited the fort?

Case Study 4

Divit has a field with total area of 1260 m². He uses this field to grow wheat and rice. The land used to grow wheat i.e. wheat land is rectangular in shape while the rice land is in the square shape. Length of wheat land is found to be 3m more than twice the length of the rice land.

Give the answer for the following questions.

(i)   If the length of the rice land is x metre, find the total length of the field.
(ii) Find the perimeter of the whole field?
(iii) What is the ratio of area of wheat land to rice land?

Case Study 5

In November 2020, some new animals were added to a zoo. As a result, the number of visitors to the zoo, increased daily by 10. A total of 6150 people visited zoo during that month.

Based on the above information, answer the following:

(i)   How many visitors visited the zoo on 1st November?
(ii) On which day of the month did 250 visitors visited the zoo?
(iii) How many persons visited the zoo in the last 5 days of the month of November?

Subject – Science

Chemistry: Completion of practical work.

Page – 41   (1) To find the pH of following samples by using pH paper or Universal Indicator.

(i)   DilHCL   (ii)   DilNaOH   (iii)   Dil Ethanoic acid

(iv) Dil NaHCO$_3$ S0ln   (v)   Water   (vi)   Lemon Juice

Page – 46   (2) To study the properties of acids and bases (DilHCL and DilNaOH) by their reaction with

a) Blue and red litmus   b) Zinc metal   c) Solid Na$_2$CO$_3$

Page – 58   (3) (i) To observe the action of Zn, Fe, C$_4$ and Al metals on the following salt solutions

(a) ZnSO$_4$ solution   (c) Fe(SO$_4$)$_3$ solution
(b) CuSO$_4$ solution   (d) Al$_2$ (SO$_4$)$_3$ solution

(ii) Arrange Zn, Fe, Cu, Al in the decreasing order of their reactivity.

Biology:

Page 74 – 76   1.   To show CO_2 is produced during respiration.

Page 77 – 79   2.   To study (i) Binary fission in Amoeba (ii) Budding in yeast

Page 80 – 82   3.   To identify the different parts of embryo in dicot seed.

Theme file   :   Conservation of Natural resources

It includes

i.   Title page   iv.   Acknowledgement
ii.   Index   v.   Introduction of Natural Resources
iii.   Examples of natural resources
    a. Water   b.   forests   c.   wild life

vi.   Effects of its consumption on a large scale

vii.   Its after effects / consequences.

viii.   How to conserve

- What public can do?
- What Govt. can do?

ix.   Slogan

x.   Bibliography

Physics

Worksheet on 'Reflection & Refraction'

I.   Assertion and Reason Questions

Following questions consist of two statements: -

Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given

below:

a. Both A and R are true and R is the correct explanation of A.
b. Both A and R are true but R is not the correct explanation of A.
c. A is true but R is false.
d. A is false but R is true.

Q1.   Assertion (A): - The centre of curvature is not a part of the mirror. It lies outside its reflecting surface.

Reason (R) : - The reflecting surface of a spherical mirror forms a part of a sphere. This sphere has a centre.

Q2.   Assertion (A) : - A ray passing through the centre of curvature of a concave mirror after reflection, is reflected back along the same path.

Reason (R) : - The incident ray falls on the mirror along the normal to the reflecting surface.

Q 3.   Assertion (A) : - Light does not travel in the same direction in all the media.

Reason (R): - The speed of light does not change as it enters from one transparent medium to another.

Q4.   Assertion (A) ; - The mirrors used in search lights are concave spherical.

Reason (R) ; - In concave spherical mirror the image formed is always virtual.

Q5.   Assertion (A) : - Mirror formula can be applied to plane mirror.

Reason (R) : - A plane mirror is a spherical mirror of infinite focal length.

II.   Match the following; -

Position of Object	Position of Image
a. At focus of convex lens	1.At focus on same side of object
b. At infinity (Concave lens)	2.At C
c. At C (Concave mirror)	3. Beyond C
d. Between C & F (Concave mirror)	4. At infinity
e. At infinity (Convex lens)	5. At focus on opposite side of object.

III.   Solve the following Numericals

1. The incident ray makes an angle of 30^0 with the surface of a plane mirror. Find the angle of reflection.
2. An object of 4 cm height is placed at a distance of 18 cm from concave mirror having focal length 12 cm. Find the position, nature and height of image.
3. Two thin lens of power +3. 5 D and -2.5 D are placed in contact. Find the power and focal length, if the lens are in combination.
4. A ray of light moves from air to glass. If the angle of incidence is 45^0 and angle of refraction is 30^0. Find the refractive index of the glass.
5. A needle placed 45 cm from a lens forms an image on a screen placed 90 cm on the other side of the lens. Identify the type of lens determine its focal length and the power. What is the size of the image if needle is 5 cm in height?

Subject – Social Studies

1) Every student has to compulsorily undertake any one project on the following topics
   a. Topic A: Consumer Awareness
   b. Topic B: Social Issues
   c. Sustainable Development

Guidelines for the above project

- Project should be handwritten on assignment sheets.
- Project should be of 15 pages.
- On cover page write class, Roll no, Topic, Name of student.

- o *Page 1 : Acknowledgment*
- o *Page 2 : Content*
- o *Page 3 : Introduction*
- o *Page 4 – 13 : Explanation*
- o *Page 14 : Summary*
- o *Page 15 : Bibliography*

- *Imagine that you have just become a member of Lok Sabha, write your first speech outlining your vision & hope. Speak about needs of the electorate.*

- *Write down the main purpose of following Govt. schemes.:*
  - o *Rashtriya Madhyamik Siksha Abhiyan*
  - o *Mahila Samakhya Scheme*
  - o *Saakshar Bharat*
  - o *Swach Bharat Abhiyan*

- *Prepare a family budget of one month including all the expenses. After that check whether it is surplus or deficit.*

Subject – Physical Education

Mainstreaming Health and Physical Education   Topic – Games Hockey

Make an assignment on the given games.

1. *Also write the history and introduction of hockey*

2. *Latest rules of hockey.*

3. *Fundamental skills of hockey*

4. *Major tournaments and awards of hockey.*

Subject – Art and Craft

- *Prepare your activity/ model given by the art teachers with the help of videos.*
- *Topics are already allotted in the class.*
- *Follow the steps given in the video.*
- *Prepare the given project beautifully and for any query contact art teachers.*
- *Best Materials will be selected for exhibition.*

Subject – Art Integrated Project

Topic : types of soil   No. of total sheets 32   dates of project from 12/6 to 30/6/2023

Guidelines for Art integrated project

1. *It is compulsory to submit the Art Integrated Project involving subjects English, Hindi, Maths, Science and Social Studies.*

2.   Use colourful assignment sheets of A – 4 size to complete the project.

3.   Draft acknowledgement on very first page of the project (Page – 1)

4.   Make index on page no.2

5.   Make collage, paste pictures and draw diagrams, figures, pie – chart, bar graph etc. by using pencil colours, sketches or any other medium of colours wherever required.

6.   Search the material required from any source available and mention the source under bibliography on last page.

7.   Punch all the assignment sheets and tag in a decorated file.

8.   Compete your given project on time and submit on 6th July 2023 at 09:00AM.

9.   Write beautifully in neat and clean handwriting.

Sequence of project should be as follows:

Page 1:   Name of school

           Name of project – Art Integrated Project

           Topic – Types of soil

           Submitted by – Name of student , Roll No,

           Submitted to – Class Incharge   for   X-A (Mrs. Meenakshi Arora)

                                                       X- B (Mrs. Satinder Kaur)

                                                       X – C (Mrs. Mandeep Kaur)

Page 2:   Acknowledgement

Page 3:   Index (Shown as below)

Sr.	Subject	Page no.	Signature
1	Social Studies		
2	Maths		
3	Science		
4	English		
5	Hindi		
6	Thanks		
7	Bibliography		

Social Studies: (No. of Pages 4)

Topic : Compare the soil profile of Punjab and Odisha

- ❖ What is soil? Explain soil profile?

- ❖ *What type of soil is found in Punjab and Odisha? Why?*
- ❖ *Name the crops grown in Punjab & Odisha.*
- ❖ *Describe different farming methods in Punjab and Odisha.*
- ❖ *On the blank side you will paste Punjab political, Odisha political, soil profile pictures.*

Maths: (No. of Pages 4 – 5)

Topic : *Compare percentage of different types of soil of Punjab and Odisha*

- ❖ *Definition of soil*
- ❖ *Types of soil of Punjab and Odisha*
- ❖ *Collection of data related to types of soil*
- ❖ *Compare percentage of types of soil with the help of pie chart. (Make pie chart of two states i.e. Punjab and Odisha Separately.*
- ❖ *Compare the same percentage by double bar graph and show the comparison on graph with two different colours (Red for Punjab and blue for Odisha).*
- ❖ *Conclusion*

Science: (No. of Pages 5 – 6)

Topics: *Nature of soil on the basis of Ph.*

- ❖ *Introduction of soil*
- ❖ *Types of soil   (a)   Clayey   (b)   Loamy   (c)   Sandy   (d)   Alluvial*
- ❖ *Categorization of soil on the basis of pH.*
- ❖ *Effect of soil on the growth of crops.*
- ❖ *Comparison of Odisha and Punjab soil.*

English: No. of pages – 4

Topic : *Article on 'Soil Erosion'*

- ❖ *Write an article on soil erosion on ruled pages*
- ❖ *Paste pictures related to topic on every plain page.*

Hindi: No. of pages – 2

'मेरे देश की मिट्टी'

- • प्रस्तुत विषय पर कविता लेखन करें।
- • विषय से संबंधित चित्र भी बनाएँ या चिपकाएँ।

Subject – Sewa Project

Introductions: i.   *Do on blue file*

         ii.   *Project should be neat and clean*

         iii.   *Add pictures related to each points*

         iv.   *Outline all the pictures with black marker.*

Topics – Environment conscious citizens as part of ECO Club.

Explain all these given points

1. *Define environment*
2. *Climate changes*
3. *Global Warming*
4. *Environmental Issues*
5. *Human impact*
6. *Environmental conservation*
7. *Sustainability*
8. *Environmental law*
9. *Bibliography*