



# BCM School

Basant City, Pakhowal Road, Ludhiana

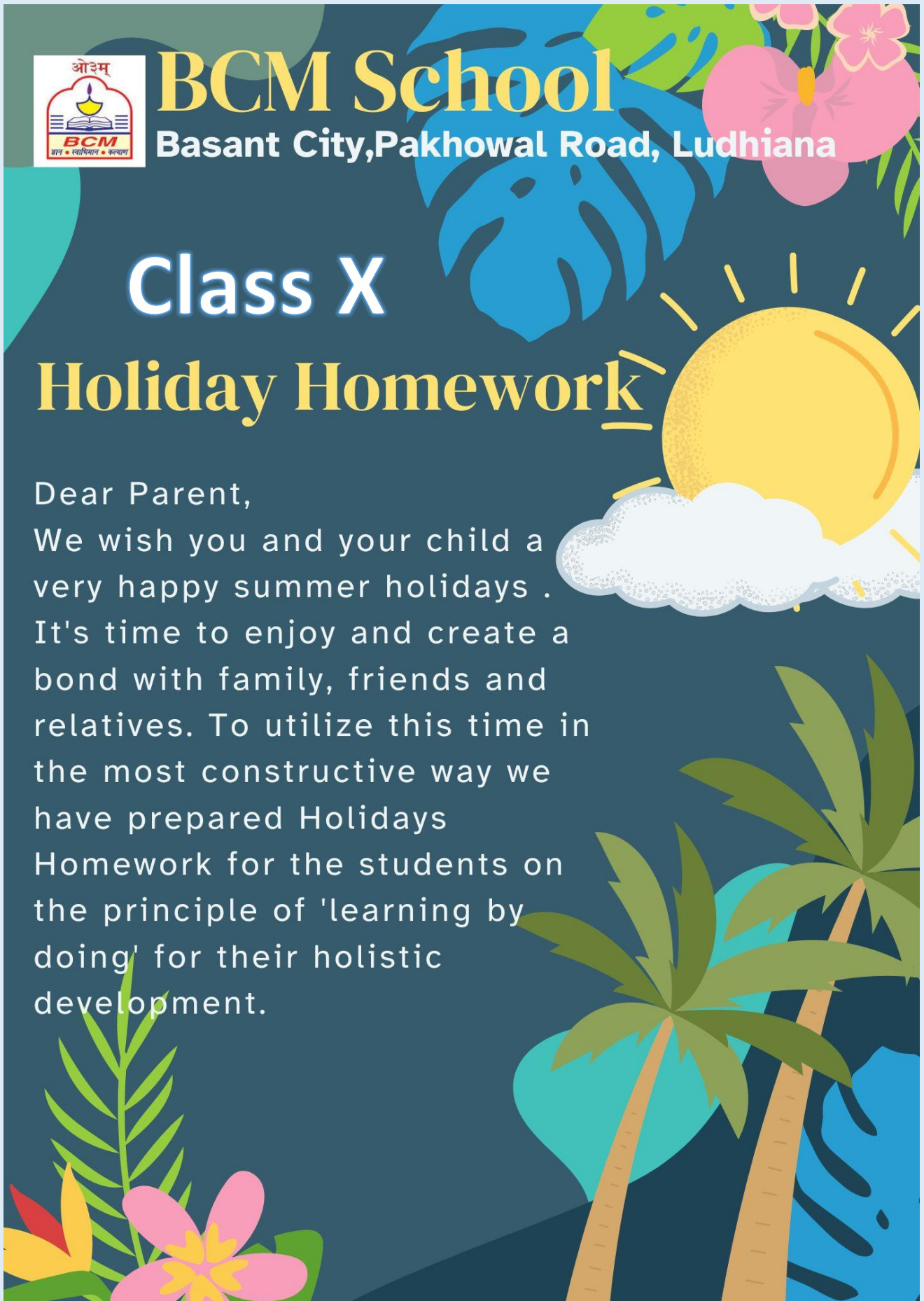
## Class X

# Holiday Homework

Dear Parent,

We wish you and your child a very happy summer holidays .

It's time to enjoy and create a bond with family, friends and relatives. To utilize this time in the most constructive way we have prepared Holidays Homework for the students on the principle of 'learning by doing' for their holistic development.



## Subject : Maths

- Solve the given assignment in your assignment notebook.
  - Do the following activities in your practical notebook.
1. To make a graphical exploration of zeroes of a quadratic polynomial.
  2. For given a system of simultaneous linear equations graphically such that system is in-consistent.
  3. To derive a formula for the sum of the first n natural numbers.
  4. Given a sequence of numbers ,to find out whether it is an arithmetic progression or not .
  5. To verify Basic Proportionality Theorem
  6. To verify that the lengths of tangents drawn from an external point to a circle are equal
  7. To verify the fundamental identity:  
 $\sin^2 A + \cos^2 A = 1$
  8. To calculate the height of a tree by using trigonometry.
  9. To derive the section formula
  10. To obtain a formula for the volume of sphere

### Assignment

1. Split 207 into three parts such that these are in A.P. and the product of two smaller parts is 4623.
2. For what value of k , $2k-7$ ,  $k+5$  and  $3k+2$  are three consecutive terms of A.P.?
3. Find the value of middle most term(s) of the A.P.  $-11, -7, -3, \dots, 49$ .
4. The sum of first m terms of an A.P. is  $4m^2 - m$ . If its nth term is 107, find the value of n. Also find the 21<sup>st</sup> term of this AP.
5. Find a, b and c such that the following numbers are in AP :  $a, 7, b, 23, c$ .
6. Solve for  $x$ :  
$$x: \frac{1}{a+b+x} = \frac{1}{a} + \frac{1}{b} + \frac{1}{x}$$
7. If the equation  $(1+m^2)x^2 + 2mcx + c^2 - a^2 = 0$  has equal roots then show that  $c^2 = a^2(1+m^2)$ .
8. The sum of two numbers is 9 and the sum of their reciprocals is  $\frac{1}{2}$  Find the numbers.
9. Find the value of k for which the roots of equation  $3x^2 - 10x + k = 0$  are reciprocal of each other.
10. Find the value of p such that the quadratic equation  $(p-12)x^2 - 2(p-12)x + 2 = 0$  has

equal roots.

11. What is the HCF of smallest composite number and smallest prime number.

12. LCM of coprime number is always \_\_\_\_\_.

13. what is HCF  $(a,b) = ?$  if  $a = x^3y^2$  and  $b = xy^3$ ;  $x$  and  $y$  are prime numbers.

14. If  $\text{LCM}(480,672) = 3360$ , Find  $\text{HCF}(480,672)$ .

15. Explain why  $3 \times 5 \times 7 + 7$  is a composite number.

16. A circular field has a circumference of 360 km. Three cyclist start together and can 48, 60 and 72 km a day round the field. When will they meet again?

17. Prove that  $\sqrt{7}$  is irrational. Hence find  $2 - \sqrt{7}$  is also irrational.

18. If sum of LCM & HCF of two numbers is 1260 and their LCM is 900 more than their HCF. find the product of two numbers.

19. If  $\alpha$  &  $\beta$  are zeroes of the polynomial  $2x^2 + 5x + k$  satisfying  $\alpha^2 + \beta^2 + \alpha\beta = 21/4$  then find the value of  $k$ .

20. If  $\alpha$  &  $\beta$  are zeroes of the polynomial  $x^2 + x - 2$ , then find the polynomial whose zeroes are  $(2\alpha + 1)$  and  $(2\beta + 1)$ .

21. Find the zeroes of  $p(x) = 4\sqrt{3}x^2 + 5x - 2\sqrt{3}$  and verify relationship between zeroes and its coefficients.

22. Place A, B are 90 km apart. Car A starts at point A & car B start at B if they go in same directions they meet after 9 hrs & in opposite direction in 9/4 hrs. find their speed.

23. Two pipe together can fill in  $33 \frac{1}{13}$  hrs. if one pipe will take 3 minutes more than other to fill the tank. Find the time taken by each separately.

24. Solve graphically the following pair of linear equations :

$2y - 3x = 14$ ;  $2x + 3y = 8$  Hence, shade the region enclosed by these lines and Y axis.

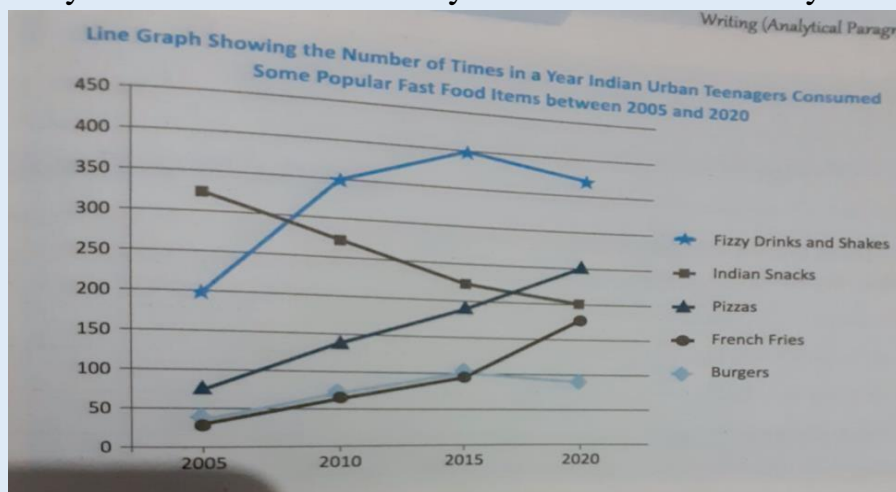
25. Rs 9000 were divided equally among a certain number of persons. Had there been 20 more persons, each would have got Rs 160 less. Find the original number of persons.

## Subject: English

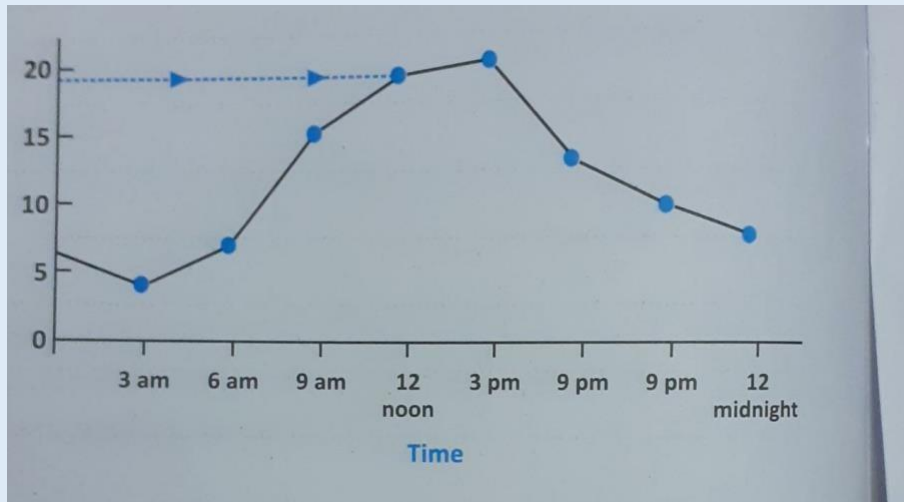
- A. Read 1 to 5 Unseen passages from bbc Compacta and solve them.
- B. The best part about cooking without fire is that it is healthy, easy and quick and can be made as your mood permits. Try any non-fire cooking recipe. Mention the ingredients and procedure of making that recipe in detail using passive voice. Write and decorate it on A4 size sheet.
- C. Write a paragraph on any one of the following topics in about 150 words:
- \* Man and the Environment.
  - \* Family time imbibes Values in Children.
  - \* Contribution of Yoga in leading a Healthy and Peaceful Life.
- D. Analytical Paragraphs in 120- 150 words. ( Do on A4 size sheets to put in English folder).
1. The table below shows the average daily consumption of coffee and tea on weekdays by six employees in a company. Study the information carefully and then write a paragraph analyzing the data. Make comparison and draw conclusion as appropriate.

Employee	Coffee		Tea		Total No. of Cups	
	AM	PM	AM	PM	Coffee	Tea
Bhushan	0	0	2	2	0	4
Chaitali	1	2	0	0	3	0
Evan	1	1	1	1	2	2
Mahmood	0	0	2	3	0	5
Sukhwinder	2	0	0	2	2	2
Mohanan	2	2	0	0	4	0

2. The line graph below shows the consumption of fast food by Indian urban teenagers between 2005 and 2020. Study the information carefully and then write an analytical paragraph.



3. The line graph shows temperature fluctuations on a particular day in a city. Carefully study the information and then write a paragraph analyzing the data.



4. Make a picture illustration of the poem 'Dust of Snow' on A4 size sheet and maintain it in English File.

5. Complete all the Assignments of Gap Filling in bbc Compacta.

6. Revise rules of Tenses and Determiners and do Practice from bbc Compacta.

7. Read Chapter no 3 to 5 of 'First Flight'.

8. Prepare a File Folder ( Portfolio ) of English and put all the activities ( Point B,C,D & E) of English in it.

## **SUBJECT – SOCIAL SCIENCE**

1. Make a poster of Bharat Mata on A4 size sheet.  
(From Roll No 1 to 8)
2. Draw National Flag used during Swadeshi Movement on A4 size sheet.  
(From roll no 9- 14)
3. Prepare the chart on classification of economic sectors with the help of pictures.  
(From roll no 15 to 21)
4. Compare the Organized and Unorganized sector with the help of pictures.  
(From roll no 22 to 30)
5. Compare the employment opportunities in three sectors in the form of Bar Graph.  
(From roll no 31 onwards)
6. Map Work: (Common for all the students)
  - (i) Types of soils (use colours for different soils) Chapter – 1
  - (ii) Major Dams Chapter – 3 (Water Resources) Dams:

a. Salal	b. Bhakra Nangal	c. Tehri
d. Rana Pratap Sagar	e. Sardar Sarovar	f. Hirakud
g. Nagarjuna Sagar	h. Tungabhadra	
7. Slogan Writing on ‘Disaster Management’ (R. N. 1 to 18)
8. Prepare a poster on ‘Disaster Management’ (R.N. 19 Onwards)
9. Art Integrated Activity: (common for all students)

Compare the soil type, Climate, Rivers and Crops of Punjab and Odisha.
10. Project Work (List is attached)

**TOPICS FOR PROJECT**

**SESSION – 2024 – 25**

- ✓ Students will choose the topic according to their Roll No.
- ✓ Any project submitted that is not according to the roll Number will not be accepted.

<b>Roll No</b>	<b>Topic for Project</b>
1	CONSUMER RIGHTS
2	SUSTAINABLE DEVELOPMENT – NEED OF THE HOUR
3	DRUG ADDICTION
4	CHILD LABOUR
5	ILLEGAL IMMIGRATION
6	HUMAN RIGHTS VIOLATION
7	TERRORISM
8	INEQUALITY ON THE BASIS OF GENDER
9	COMMUNALISM
10	ECOLOGICAL CRISIS
11	ILLITERACY – LACK OF EDUCATIONAL FACILITY
12	CONQUERING DISEASES
13	CRIME AGAINST WOMEN
14	REVERSING POVERTY
15	NATURAL DISASTER
16	MAN MADE DISASTERS
17	STANDARDIZATION OF PRODUCT
18	CONSUMER RIGHTS
19	SUSTAINABLE DEVELOPMENT – NEED OF THE HOUR
20	DRUG ADDICTION
21	CHILD LABOUR
22	ILLEGAL IMMIGRATION
23	HUMAN RIGHTS VIOLATION
24	TERRORISM
25	INEQUALITY ON THE BASIS OF GENDER
26	COMMUNALISM
27	ECOLOGICAL CRISIS
28	ILLITERACY – LACK OF EDUCATIONAL FACILITY
29	CONQUERING DISEASES
30	CRIME AGAINST WOMEN
31	REVERSING POVERTY
32	NATURAL DISASTER
33	MAN MADE DISASTERS
34	ECOLOGICAL CRISIS
35	TERRORISM
36	IMPACT OF COVID 19
37	CHILD LABOUR

FORMAT OF PROJECT:



**BCM SEN. SEC. SCHOOL,**

**BASANT CITY,**

**LUDHIANA**

**SOCIAL SCIENCE PROJECT REPORT**

**SESSION – 2024 – 2025**

**TOPIC**

Submitted To:

Submitted By:

Name :-

Class:-

Roll No:-



**BCM SEN. SEC. SCHOOL, BASANT CITY, LUDHIANA**

**DEPARTMENT OF SOCIAL SCIENCE**

**CERTIFICATE**

This is to certify that \_\_\_\_\_(name of student), a student of class X has successfully conducted the report on the project \_\_\_\_\_(topic of Project) under the guidance of \_\_\_\_\_(Subject Teacher) during the year 2024 – 2025 in partial fulfillment of Social Science practical examination conducted by AISSE, New Delhi.

Name of Examiner

\_\_\_\_\_

Signature of Examiner

\_\_\_\_\_

Name of Subject Teacher

\_\_\_\_\_

Signature of Subject Teacher

\_\_\_\_\_

## ACKNOWLEDGEMENT

In the present world of competition there is a race of existence in which those are having will to come forward succeed. Project is like a bridge between theoretical and practical working. With this willing I joined this particular project.

First of all, I am grateful to The Almighty God for establishing me to complete this project.

I wish to express my sincere thanks to \_\_\_\_\_ **(Principal) of BCM Sen. Sec. School, Basant City, Ludhiana)** for providing me with all necessary facilities.

I place on record, my sincere gratitude to **Mrs. KIRAN GARG (Co-ordinator)** for her constant encouragement.

I also thank \_\_\_\_\_ (Social Science Teacher), Department of Social Science. I am extremely grateful and indebted to her for her expert, sincere and valuable guidance and encouragement extended to me.

I take this opportunity to record my sincere thanks to all the faculty members for their help and encouragement. I also thank my parents for their unceasing encouragement and support.

I also place on record my sense of gratitude to one and all who directly or indirectly have lent their helping in this venture.



Page No 5 – 18

INTRODUCTION AND SUBJECT MATTER ALONGWITH PICTURES, MAPS AND GRAPH

Page No 19 – SUMMARY

Page No 20 – BIBLIOGRAPHY

Special Note:-

- ✓ The project should have a good presentation and creativity.
- ✓ Use single line assignment sheets for your project report.
- ✓ Use glitter pens if necessary.
- ✓ Decorate your file in well manner.

## Punjabi

- 1.ਆਪਣੀ ਪਾਠ ਪੁਸਤਕ ਵਿਚ ਦਰਜ ਇਕਾਂਗੀ ਦੂਜਾ ਵਿਆਹ ਵਿਚਲੀਆਂ ਮੁੱਖ ਸਮਾਜਿਕ ਸਮੱਸਿਆਵਾਂ ਨੂੰ ਸਮਝੋ ਤੇ ਲਿਖੋ।
- 2.ਆਪਣੇ ਸਕੂਲ ਮੈਗਜ਼ੀਨ ਲਈ 'ਸਫਲਤਾ' ਵਿਸ਼ੇ ਨੂੰ ਦਰਸਾਉਂਦੀ ਕਹਾਣੀ ਲਿਖੋ।
- 3.ਆਪਣੀ ਵਿਆਕਰਨ ਪਾਠ ਪੁਸਤਕ ਵਿਚ ਦਰਜ ਗ ਤੋਂ ਝ ਤਕ ਮੁਹਾਵਰੇ ਪੜ੍ਹੇ ਤੇ ਯਾਦ ਕਰੋ ।
4. ਆਪਣੀ ਪਾਠ ਪੁਸਤਕ ਵਿੱਚੋਂ ਸਮਾਸੀ ਸ਼ਬਦ, ਬਹੁ ਅਰਥਕ ਸ਼ਬਦ, ਅਗੇਤਰ ਪਿਛੇਤਰ ਨੂੰ ਧਿਆਨਪੂਰਵਕ ਪੜ੍ਹੇ ਤੇ ਯਾਦ ਕਰੋ।
5. i) ਪੰਜਾਬ ਤੇ ਉੜੀਸਾ ਦੇ ਪਹਿਰਾਵੇ ਨੂੰ ਦਰਸਾਉਂਦਾ ਪ੍ਰੋਜੈਕਟ ਬਣਾਓ । ( Roll.No.1-10)  
ii) ਪੰਜਾਬ ਤੇ ਉੜੀਸਾ ਦੇ ਖਾਣ ਪੀਣ ਨੂੰ ਦਰਸਾਉਂਦਾ ਪ੍ਰੋਜੈਕਟ ਬਣਾਓ । ( Roll.No.11-20)  
iii) ਪੰਜਾਬ ਤੇ ਉੜੀਸਾ ਗੀਤ ਸੰਗੀਤ ਨੂੰ ਦਰਸਾਉਂਦਾ ਪ੍ਰੋਜੈਕਟ ਬਣਾਓ ।( Roll.No.21-30)  
iv) ਪੰਜਾਬ ਤੇ ਉੜੀਸਾ ਨਾਚ ਨੂੰ ਦਰਸਾਉਂਦਾ ਪ੍ਰੋਜੈਕਟ ਬਣਾਓ । ( Roll.No.31 Onwards)

## ग्रीष्मकालीन अवकाश गृहकार्य

### कक्षा 10 हिंदी

#### परियोजना कार्य -

1. हिंदी समाचार पत्रों से किसी भी उत्पाद वस्तु, इलेक्ट्रॉनिक वस्तु, शिक्षक पद की आवश्यकता, आदि विषयों पर आधारित लगभग 5 विज्ञापनों को काट कर A4 SIZE PAPER में चिपकाए |
2. अनुच्छेद लिखिए (लगभग १२० शब्दों में)
  - i. अपनी किसी रोमांचक यात्रा का वर्णन
  - ii. साइबर सुरक्षा – जागरूकता ही समाधान
3. पंजाब और ओडिशा के सुषिर वाद्य यंत्रों पर प्रोजेक्ट बनाएं ।
4. रचना के आधार पर वाक्य भेद बताते हुए उनके 10-10 उदाहरण लिखिए ।

#### पोर्टफोलियो -

विद्यालय का नाम लिखिए

कक्षा : 10

छात्र का फोटो

## छात्र की सूचना

छात्र/छात्रा का नाम : \_\_\_\_\_

जन्म तिथि : \_\_\_\_\_

उम्र : \_\_\_\_\_

कक्षा व वर्ग : \_\_\_\_\_

क्रम संख्या : \_\_\_\_\_

विद्यालय का नाम : \_\_\_\_\_

विद्यालय में प्रवेश संख्या : \_\_\_\_\_

विद्यालय में प्रवेश वर्ष : \_\_\_\_\_

लंबाई : \_\_\_\_\_

भार : \_\_\_\_\_

रक्त समूह : \_\_\_\_\_

आधार संख्या : \_\_\_\_\_

## पारिवारिक सूचना

माता का नाम : \_\_\_\_\_

पेशा : \_\_\_\_\_

संपर्क दूरभाष : \_\_\_\_\_

पिता का नाम : \_\_\_\_\_

पेशा : \_\_\_\_\_

संपर्क दूरभाष : \_\_\_\_\_

भाई-बहन की संख्या : \_\_\_\_\_

घर का पता : \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



छात्र / छात्रा के अपने जवाब

1. आपको किन चीजों से ज्यादा लगाव है ?

उ: \_\_\_\_\_

2. आपका प्रिय खेल कौन-सा है ?

उ: \_\_\_\_\_

3. आपको किस चीज से ज्यादा डर लगता है ?

उ: \_\_\_\_\_

4. अपने घनिष्ठ मित्र का नाम लिखिए –

उ: \_\_\_\_\_

5. आपको अपने मित्र के कौन से गुण अच्छे लगते हैं ?

उ: \_\_\_\_\_

6. आप भविष्य में क्या बनना चाहते हैं ?

उ: \_\_\_\_\_

7. आपके प्रिय महापुरुष कौन है ?

उ: \_\_\_\_\_

8. पसंदीदा पुस्तक का नाम लिखिए।

उ: \_\_\_\_\_

9. आपका शौक क्या है?

उ: \_\_\_\_\_

10. छुट्टियों में आप कहाँ जाना चाहते हैं?

उ: \_\_\_\_\_

छात्र / छात्रा का हस्ताक्षर : \_\_\_\_\_ शिक्षक/ शिक्षिका का हस्ताक्षर : \_\_\_\_\_

नाम : \_\_\_\_\_ नाम : \_\_\_\_\_

दिनांक : \_\_\_\_\_ दिनांक : \_\_\_\_\_

## Science

### Chemistry

1. Prepare detailed report on types of chemical reactions on A4 sheets write activities related to type of chemical reactions. Draw diagram wherever needed.
2. Categorise the naturally occurring substances as acid, bases and neutral by using natural indicators. (water, coffee, onion, Mustard oil, milk, lemon Juice, cold drinks)
3. Solve the given assignment of chapter 1 and 2.
4. Make a working model on carbon compounds using ball and sticks model.

### Physics

Please Note: Home work class X to be done on fair notebook

1. Explain functioning of different parts of human eye with well labelled diagram.
2. Explain different defects of vision, their causes and correction with the help of well labelled diagrams.

\*\* Revise Chapter Light with assignment

### Project

Every student will make minimum two posters on A3 sheets on the following topics according to their classes.

X Oak Robotics

X Pine Best Out Of Waste

X Teak Environmental Science

X Ebony. Working model on Best Out Of Waste

X Maple AI

## ***Biology Assignment- Ch --- Life process***

1. How is 'respiration' different from 'breathing'? Explain the process of aerobic and anaerobic respiration.
2. I) Name the blood vessel that brings oxygenated blood to the human heart.  
II) Which chamber of the heart received oxygenated blood?  
III) Explain how is the oxygenated blood from this particular chamber sent to all the body parts?
3. Explain the schematic representation of gaseous exchange in tissues.
4. (a) "The breathing cycle is rhythmic whereas exchange of gases is a continuous process". Justify this statement.  
(b) What happens if conducting tubes of circulatory system develops a leak?  
State in brief, how could this be avoided?  
c) How opening and closing of stomata takes place?
5. What is the significance of emulsification of fats?
6. Why is the small intestine in herbivores larger than in carnivores?
7. What is the advantage of four chambered heart?
8. Explain the process by which inhalation occurs during breathing in human beings?
9. Prepare a Portfolio on Management of Natural Resources.
10. Read the Chapter Life Process and control and Co-ordination and prepare 20 from each chapter.
11. Draw the diagram of Digestive System, Respiratory System and Excretory System.

## *Artificial Intelligence*

1. Make a Poster on following topics
  - Robotics in Education (Rno 1 to 10)
  - IOT (Rno 11 to 20)
  - Robotics in Transportation (Rno 21 to 30)
  - SDG's (Rno 31 to 40)
2. Make a chart on AI websites (Describe /Paste pictures/Purpose of the website)
3. Revise and Learn the chapters of class IX and X May unit test
4. Portfolio - Research Work on
  - Chat bot (Script bot Vs. Smart bot) (Rn 1 to 10)
  - NLP (R no 11 to 20)
  - Evaluation (R no. 21 to 30)
  - 4Ws Canvas (R no. 31 to 40)

*Happy Holidays*