

Deepawali & Chhath Holiday Home Work

Class – IX B

Computer

- (1) List any 5 word processors
- (2) List the Rewards, Challenges, risks of an Entrepreneur
- (3) Explain the different types of Operating System.

Project (In Copy)

- (1) List 5 Entrepreneurs of the world with their images and their achievements
- (2)

Economics

1. Draw a neat and clean vicious cycle of poverty . (Treat as project work)
2. What are the basic reasons for poverty in the country? Explain.
3. Mention the name of the most poorest state and the least poorest state in the country.

History

Answer the following questions with answers in hw copy

1. Name the countries which formed the Axis powers During the Second world War.
2. Explain genocidal war. (p. 50)
3. Name the countries which formed the Allied powers.
4. Explain the impact of First world War on Germany (p. 52)
5. Define the Economic Crisis of 1923. (p. 52-53)
6. What was the Weimar Republic ? (p. 51)
7. Write short notes on Treaty of Versailles. (p.52)
8. On an outline map of World label the following countries (A) Axis powers (B) Allied powers.

Project work:- Collect the photograph of Adolf Hitler and paste it On a scrap book and write related information about him.

Note:- You may take help of digital platforms.

CIVICS

1. Write short notes of the followings
 - A. General election
 - B. Secret Ballot
 - C. Electoral roll
 - D. EVM
 - E. EPIC
 - F. Constituency
2. Write any five functions of the Election Commission.
3. What do you mean by the term Code of Conduct?
4. Write few lines regarding any three slogans.

Project Work:- Draw and Write any three objectives of the following parties:-

- a. BJP
- b. INC
- c. CPIM
- d. CPI(M)
- e. BSP

Do on a chart paper and that should be very colourful and decorative.

Geography

1. Enlist the characteristic features of the Godavari Basin.
2. What is meant by drainage? Explain any four benefits of rivers.
3. What are the causes of river pollution? How can it be prevented?
4. Give main characteristic feature of the Ganga river system.
5. Describe the features of Mahanadi Basin.

Project Work:- Mark and locate the following features in an Outline Map of India

- Areas receiving rainfall over 400cm.
- Areas receiving less than 20cm of rainfall.
- The direction of the Southwest Monsoon over India.

English

Read the following chapters to improve your understanding skills.

1. The Beggar (Anton Chekhov)
2. No Men Are Foreign (James Kirkup)
3. Packing (Jerome K. Jerome)

Read the above chapters silently without any lip movement first for better understanding and then loudly to improve your pronunciation.

Writing H.W

Write the questions and answers of above lessons in neat and clean handwriting.

Change the following sentences into passive voice.

They say that he is a spy.

Example...He is said to be a spy.

- He said that he was a spy.
- They say that he is honest.
- They say that he is diligent.
- They say that he was a spy.
- Change the following sentences into indirect speech.
- Manoj said to Geeta, " You were teaching my sister."
- He said to me, " I am reading my book."
- Poonam said to me, " I have come to you because I am in need of your help."
- He remarks, " A bad carpenter quarrels with his tools."
- He said to me, " Are you ill? "
- H. W based on Subject and Verb Agreement
- Either you or he is guilty. (is / Are)
- Neither he nor I am guilty. (is / am)
- Either the farmer or the sons are inactive. (is / are)
- Each boy has a pen. Has / Have
- One of them knows it. (know / knows)

Project work .

Write 10 to 20 things that you did to help your parents and grandparents during this Puja vacation.

Example...I helped my mother to wash clothes for her.

I helped my father to iron his clothes and pack his tiffin box.

हिन्दी

निम्नलिखित प्रश्नों के उत्तर लिखें -

1. पक्षियों को देखते ही लेखक को किसकी याद आ जाती है और क्यों ?
2. मैना कौन थी और उसके साथ क्या हुआ ?
3. परसाई जी ने प्रेमचंद की मुसकराहट के क्या-क्या कारण बताए हैं ?
4. गोपी क्या-क्या स्वांग रचने को तैयार है ? वह क्या नहीं करना चाहती है और क्यों ?
5. 'चंद्रगहना से लौटती बेर' के आधार पर प्रकृति के सौंदर्य का चित्रण करें।

परियोजना कार्य:- दीपावली पर आधारित पाँच लघुकथाओं का संग्रह तैयार करें।

Chemistry

Answer the following questions.

Question 1. What are canal rays?

Question 2. If an atom contains one electron and one proton, will it carry any charge or not.

Question 3. On the basis of Thomson's model of an atom, explain how the atom is neutral as a whole.

Question 4. What are the limitations of J.J. Thomson's model of the atom?

Question 5. Compare the properties of electrons, protons and neutrons?

Project work

Write chemical formulas of at least 50 compounds in a chart paper.

Physics

Answer the following questions

- (1) Define law of conservation of momentum
- (2) Prove $F=ma$
- (3) Prove Newton second law of equation
- (4) Define an acceleration. What is the S.I unit of an acceleration
- (5) Prove law of conservation of momentum

Project:- To show the positive, negative and zero work on chart paper with diagram à

BIOLOGY

Answer the following Questions: -

- 1.State any two conditions essential for good health.
- 2.What are the different means by which infectious disease are spread ?
- 3.What precaution would you take in your school to reduce incidence of infectious Disease ?
- 4.What is immunization ?
- 5.How many times did you fall ill in the last one year ? What were the illness ?
- 6.Conduct a survey in your neighborhood to find what the three most common disease are. Suggest three steps that could be taken by your local authorities to bring down the incidence of these disease.

PROJECT:- Write name of pathogen, mode of transmission, symptoms, target site of any five viral disease on a chart paper and also paste the picture related to that.

MATHEMATICS

Chapter (2) POLYNOMIALS

Q(1) If $p(x) = x^3 + x^2 - 9x - 9$, find $p(0)$, $p(3)$, $p(-3)$ and $p(-1)$. What do you conclude about the Zeros of $p(x)$? Is 0 a Zero of $p(x)$?

Q(2) If 2 and 0 are the zeros of the polynomial $f(x) = 2x^3 - 5x^2 + ax + b$ then find the values of a and b .

Q(3) Verify that: 1 and 2 are the zeros of the polynomial, $p(x) = x^2 - 3x + 2$

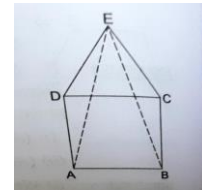
Q(4) The polynomials $(2x^3 + x^2 - ax + 2)$ and $(2x^3 - 3x^2 - 3x + a)$ when divided by $(x - 2)$ leave the same remainder. Find the value of a .

Q(5) If $p(x) = 2x^3 - 11x^2 - 4x + 5$ and $g(x) = 2x + 1$, Show that $g(x)$ is not a factor of $p(x)$.

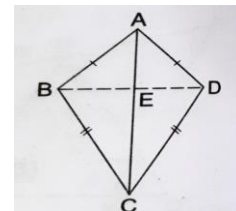
Q(6) Find the value of a for which $(x - 4)$ is a factor of $(2x^3 - 3x^2 - 18x + a)$. Q(7) If $(x^3 + ax^2 + bx + 6)$ has $(x - 2)$ as a factor and leaves a remainder 3 when divided by $(x - 3)$, Find the values of a and b .

Chapter (10) Quadrilaterals

Q(8) In the adjoining figure, ABCD is a square and $\triangle EDC$ is an equilateral triangle. Prove that $AE = BE$ (ii) angle $DAE = 15^\circ$



Q(9) In the adjoining figure, ABCD is a quadrilateral in which $AB = AD$ and $BC = DC$. Prove that (i) AC bisects $\angle A$ and $\angle C$ (ii) $BE = DE$ (iii) $\angle ABC = \angle ADC$



Q(10) If O is a point within a quadrilateral ABCD, Show that $OA + OB + OC + OD > AC$

Activity 18

OBJECTIVE

To verify experimentally that in a triangle, the longer side has the greater angle opposite to it.

MATERIAL REQUIRED

Coloured paper, scissors, tracing paper, geometry box, cardboard sheet, sketch pens.

METHOD OF CONSTRUCTION

1. Take a piece of cardboard of a convenient size and paste a white paper on it.
2. Cut out a $\triangle ABC$ from a coloured paper and paste it on the cardboard [see Fig. 1].
3. Measure the lengths of the sides of $\triangle ABC$.
4. Colour all the angles of the triangle ABC as shown in Fig. 2.
5. Make the cut-out of the angle opposite to the longest side using a tracing paper [see Fig. 3].



Fig. 1



Fig. 2



Fig. 3

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Laboratory Manual

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Fig. 4

DEMONSTRATION

Take the cut-out angle and compare it with other two angles as shown in Fig. 4. $\angle A$ is greater than both $\angle B$ and $\angle C$.

i.e., the angle opposite the longer side is greater than the angle opposite the other side.

OBSERVATION

Length of side AB =

Length of side BC =

Length of side CA =

Measure of the angle opposite to longest side =

Measure of the other two angles = and

The angle opposite the side is than either of the other two angles.

APPLICATION

The result may be used in solving different geometrical problems.

Mathematics

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Activity 9

OBJECTIVE

To verify the algebraic identity :

$$a^3 + b^3 = (a + b)(a^2 - ab + b^2)$$

MATERIAL REQUIRED

Acrylic sheet, glazed papers, saw, adhesive, cellotape, coloured papers, sketch pen, etc.

METHOD OF CONSTRUCTION

1. Make a cube of side a units and another cube of side b units as shown in Fig. 1 and Fig. 2 by using acrylic sheet and cellotape/adhesive.
2. Make a cuboid of dimensions $a \times a \times b$ [see Fig. 3].
3. Make a cuboid of dimensions $a \times b \times b$ [see Fig. 4].
4. Arrange these cubes and cuboids as shown in Fig. 5.

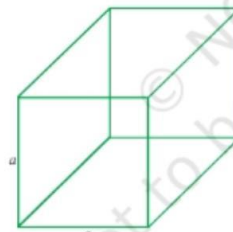


Fig. 1

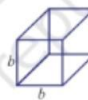


Fig. 2

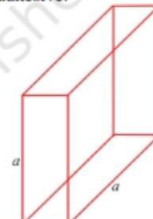


Fig. 3



Fig. 4

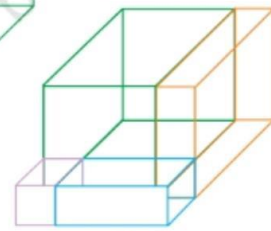


Fig. 5

Mathematics

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DEMONSTRATION

Volume of cube in Fig. 1 = a^3

Volume of cube in Fig. 2 = b^3

Volume of cuboid in Fig. 3 = a^2b

Volume of cuboid in Fig. 4 = ab^2

Volume of solid in Fig. 5 = $a^3 + b^3 + a^2b + ab^2$
 $= (a+b)(a^2 + b^2)$

Removing cuboids of volumes a^2b and ab^2 , i.e., $ab(a+b)$ from solid obtained in Fig. 5, we get the solid in Fig. 6.

Volume of solid in Fig. 6 = $a^3 + b^3$.

$$\begin{aligned} \text{Therefore, } a^3 + b^3 &= (a+b)(a^2 + b^2) - ab(a+b) \\ &= (a+b)(a^2 + b^2 - ab) \end{aligned}$$

Here, volumes are in cubic units.

OBSERVATION

On actual measurement:

$$a = \dots, \quad b = \dots$$

$$\text{So, } a^3 = \dots, \quad b^3 = \dots, \quad (a+b) = \dots, \quad (a+b)a^2 = \dots,$$

$$(a+b)b^2 = \dots, \quad a^2b = \dots, \quad ab^2 = \dots,$$

$$ab(a+b) = \dots,$$

$$\text{Therefore, } a^3 + b^3 = (a+b)(a^2 + b^2 - ab).$$

APPLICATION

The identity may be used in simplification and factorisation of algebraic expressions.

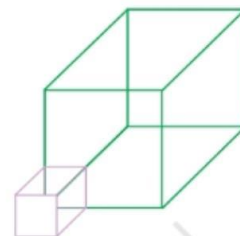


Fig. 6

