Deepawali & Chhath Holiday Homework
Class - IXA

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

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

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 .

Biology

1. Why are we normally advised to take bland and nourishing food when we are sick?
2. What are the different means by which infectious diseases are spread?
3. What precautions can you take in your school to reduce the incidence of infectious diseases?

Project:- Make a report on bacterial disease Typhoid.

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 atleast 50 compounds in a chart paper.

Q. **Answer the following question**
1. What is climate?
2. What is weather?
3. Name the elements of weather and climate.
4. What does 'monsoon' imply?
5. Which are the rainiest months of India?
6. Name the month in which the withdrawal of monsoon begins.
7. Which region of India receives most of its rainfall in winter?
8. Name the two branches of the monsoon.
9. What is burst of monsoon?
10. What me the 'retreating monsoons?
11. Name two coldest areas in India.
12. What is a jet stream?

Project work:- Find out which song,dance, festivals and special food preparations are associated with certain season in your region. Do they have some community with other region of India?

Economics

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

हिन्दी

निम्नलिखित प्रश्नों के उत्तर लिखें -

१. पक्षियों को देखते ही लेखक को किसकी याद आ जाती है और क्यों ?

२. मैना कौन थी और उसके साथ क्या हुआ ?

३. परसाई जी ने प्रेमचंद की मुसकराहट के क्या-क्या कारण बताए हैं ?

४. गोपी क्या-क्या स्वांग रचने को तैयार है ? वह क्या नहीं करना चाहती है और क्यों ?

५. 'चंद्रगहना से लौटती बेर' के आधार पर प्रकृति के सौंदर्य का चित्रण करें।

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

ENGLISH

Write all the questions and answers of the chapters given below:
1.The Bond of Love
2.The Legend of Northland
PROJECT WORK
Explain the following literary devices and find its examples from your books
Refrain
1.Onomatopoeia
2.Alliteration
3.Repetition
4.Metaphor
Note:- Project work must be done on a chart Paper.

Answer the following questions with answers in homework 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 can take help of digital platforms.

MATHS

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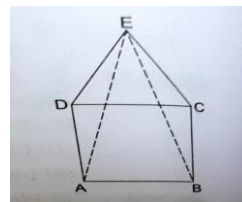1 and 2 are the zeros of the polynomial, $p(x)=x^2-3x+2$

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 reminder. 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 $p(x)$.

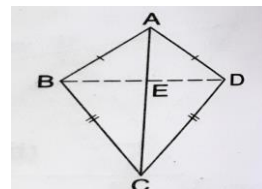Q(6) Find the value of a for which $(x-4)$ is a factor of $(2x^3-3x^2-18x+a)$.   Q(7)If (x^3+ax^2+bx+6) has $(x-2)$ as a factor and leaves a remainder 3 when divided by $(x-3)$,Find the values of a and b.

Chapter (10) Quadrilaterals

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

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

Q(10) If O is a point within a quadrilateral ABCD, Show that
OA + OB + OC + OD > AC + CD
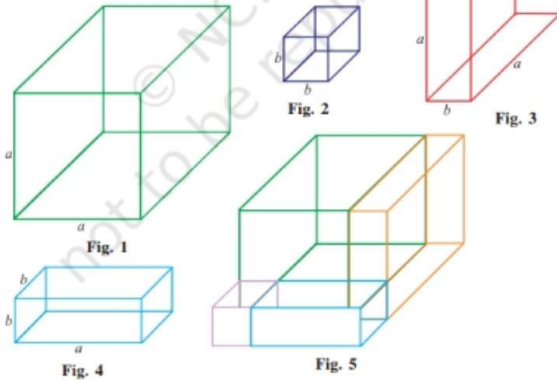
Activity 9

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. 2

Fig. 3

Fig. 1

Fig. 4

Fig. 5
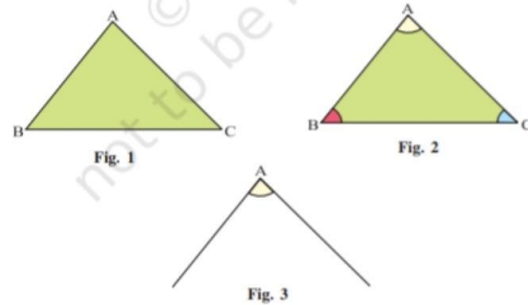
Activity 18

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

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.

Fig. 6

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

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

Here, volumes are in cubic units.

OBSERVATION

On actual measurement:

$a = $ ...., $b = $ ....,

So, $a^3 = $ ...., $b^3 = $ ...., $(a+b) = $ ...., $(a+b)a^2 = $ ....,

$(a+b)b^2 = $ ...., $a^2b = $ ...., $ab^2 = $ ....,

$ab(a+b) = $ ....,

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.
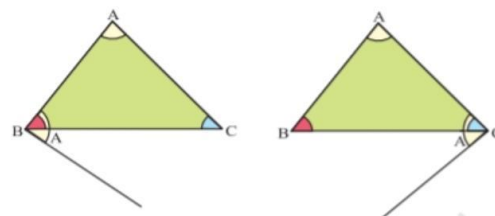

Fig. 4

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.

Computer

List any 5 word processors

List the Rewards, Challenges, risks of an Entrepreneur
Explain the different types of Opetaing System.

Project (In Copy)
List 5 Entrepreneur of the world with their images and their achievements