

APPENDICES

APPENDIX

Lesson No.: 01

Topic: concept and related concepts

Sub-topic: Plane figures and solid shapes

Phases of 5E model and teaching learning process

1) Engagement:

Teacher asked the students to name the several objects that have different shapes that they are using in their daily life

2) Exploration:

To explore, the students were divided into six groups. One plane paper was given to each group and they were asked to write the name of several objects and draw its shape and comment on it about their shape in two in two lines.

3) Explanation:

Now from each group one student was selected and was asked to present their work before other group.

4) Elaboration:

In this phase there was complete two way interactions between student and teacher. Teacher asked several questions to students and also teacher elaborated students answers about size, vertices, line segments etc.

5) Evaluation:

To evaluate, teacher asked questions like what are the different types of shapes and where we can find such shapes?

Lesson No.: 02

Topic : concept and related concepts

Sub-topic : Two dimensional figure

Phases of 5E model and teaching – learning process

1) Engagement:

Teacher asked two students to draw any figure on board. Students goes to draw the figure.

2) Exploration:

[For example student have drawn figure on tree]

Teacher asked what is the difference between this figure and real tree. Students were given five minutes to write their views on plane paper.

3) Explanation :

Randomly 4-5 students were selected say their views.

4) Elaboration :

In this phase, there was two way interactions between teacher and student and teacher gave various examples of tow dimensional figures and three dimensional figure.

5) Evaluation :

Teacher gave worksheet to each students to match the two dimensional and three dimensional figures from column A and column B.

Lesson No.: 03

Topic : concept and related concepts

Sub-topic : Geometrical shapes uses in our day to day life.

Phases of 5E model and teaching learning process

1) Engagement :

Teacher made group of six students and asked them to draw the figures of blackboard, wall watch, National flag, ruler, chalk, water droplets etc.

2) Exploration :

Teacher asked several questions like:

- a) Why shape of the water droplet is spherical in nature?
- b) Why shape of chalk and pen is cylindrical?
- c) Why shape of plants root (bottom) is cone type?

3) Explanation:

One student from each group was called and their answers were discusses among all the group and teacher gave more explanation on it.

4) Elaboration :

Teacher elaborated the content with various other types of questions and where we can find the uses of their shapes.

5) Evaluation :

- a) Teacher evaluate the students by asking the following questions:
- b) Write the name of alphabet which have spherical shape?
- c) Write the name of letter which have triangular shape?
- d) What is the shape of our blood veins and arteries?

Lesson No.: 04

Topic : Concept and related concepts

Sub-topic : Faces, Edges and Vertices

Phases of 5E model and teaching– learning process.

1) Engagement:

Teacher asked students do you remember the faces, vertices and edges of solid shapes which you studied earlier? Teacher asks students to draw the figure and name its faces, edges and vertices.

2) Exploration:

Teacher makes the group of six students each and asks them to name the faces, edges and vertices of at least two figures that they have drawn.

- a) What are vertices?
- b) What are edges?
- c) What are faces?

3) Explanation:

One student have drawn the cuboid figure. He tries to show its faces, edges and vertices by using duster. One more student explain by using notebook as a tool.

4) Elaboration:

Teacher further elaborate the topic by using learning cuboid, pyramid that they see in this everyday life.

ACHIEVEMENT TEST

Name: Time: 35min

Class: VIIth Section: _____ Date: 02 -01-2015

Subject: Mathematics Maximum Marks: 25

Q1] Choose the correct answer. (3.5marks)

- i) A rectangle is made up of _____ line segments.
a) Three b) four c) five
- ii) A quadrilateral is made up of _____ line segments.
a) Three b)four c) five
- iii) An angle smaller than a right angle is called an _____ angle.
a) Acute b) obtuse c) right
- iv) If two lines have one common point they are called _____
a) parallel lines b) perpendicular lines c) intersecting lines
- v) A triangle having two equal sides is called a _____ triangle.
a) Scalene b) Isosceles c) equilateral
- vi) If any one angle is greater than 90 degree then triangle is called an _____ angled triangle.
a) Acute b) right c) obtuse
- vii) If we combine four cube than we get _____
a) Cube b)rectangle c) Both cube and rectangle

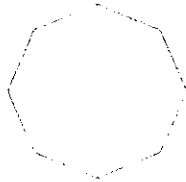
Q2] Say true or false. (3 marks)

- i) Each angle of a square is a right angle. _____
- ii) The opposite sides of a rhombus are equal in length. _____
- iii) The diagonals of a rhombus are equal in length. _____
- iv) All the sides of a rectangle are of equal length. _____

- v) All the sides of a parallelogram are of equal length. _____
- vi) The opposite sides of a trapezium are parallel. _____

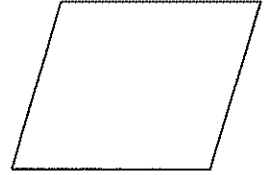
Q3] Name each polygon and draw any two diagonals for it.(4 marks)

a)



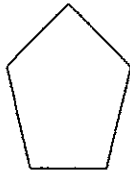
Name: _____

b)



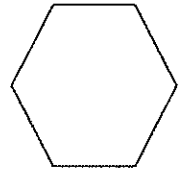
Name: _____

c)



Name: _____

d)



Name: _____

Q4] Observe the figure carefully and write the answer.

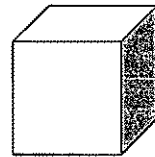
(6 marks)

- i) A cube is a cuboid whose edges are all of equal length

It has _____ faces

It has _____ edges

It has _____ vertices

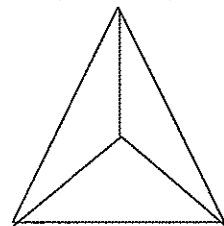


- ii) A triangular pyramid has a triangle as its base. It is also known as a tetrahedron.

It has _____ faces

It has _____ edges

It has _____ vertices

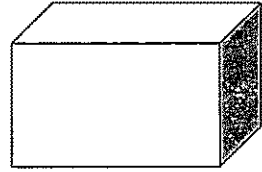


iii) A cuboid looks like a rectangular box

It has _____ faces

It has _____ edges

It has _____ corners (vertices)



Q5] Match items of 'A' with items of 'B'

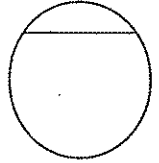
(2.5marks)

'A'

'B'

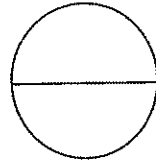
a) Radius

i)



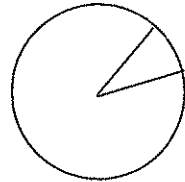
b) Diameter

ii)



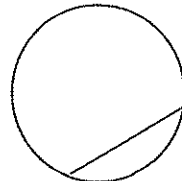
c) Chord

iii)



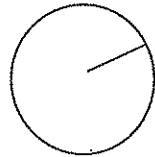
d) Segment

iv)



e) Sector

v)



Q 6] Answer the following questions. (6 marks)

i) What is the shape of the football? Draw its shape.

Ans: _____

ii) What is the shape of the Blackboard? Draw its shape.

Ans: _____

iii) What is the shape of the tube light? Draw its shape.

Ans: _____

iv) What is the shape of the five rupee coin? Draw its shape.

Ans: _____

v) What is the shape of the ruler/scale? Draw its shape.

Ans: _____

vi) What is the shape of the Samosa? Draw its shape.

Ans: _____

Answer Key : Post –test

Q1]

- | | | | |
|------|---|------|---|
| i) | b | v) | b |
| ii) | b | vi) | c |
| iii) | a | vii) | c |
| iv) | c | | |

Q2]

- | | | | |
|------|---|-----|---|
| i) | T | iv) | F |
| ii) | T | v) | F |
| iii) | T | vi) | F |

Q3]

- | | | | |
|----|---------------|----|----------|
| a) | Octagon | c) | Pentagon |
| b) | Parallelogram | d) | Hexagon |

Q4]

- | | |
|------|----------|
| i) | 6, 12, 8 |
| ii) | 4, 6, 4 |
| iii) | 6, 12, 8 |

Q5]

- | | | | |
|----|----|----|-----|
| a) | v | d) | iii |
| b) | ii | e) | i |
| c) | iv | | |

Q6]

- | | | | |
|------|-----------|-----|------------------|
| i) | Sphere | iv) | Circle |
| ii) | Rectangle | v) | Rectangle |
| iii) | Cylinder | vi) | Triangle/Pyramid |

PRE-TEST

Name: Time: 35min

Class: VII ____

Date:

Subject: Mathematics

Marks: 25

Gender: Male/Female: _____

Urban/Rural: _____

Class: VI Grade/Score: _____

Q1] Choose the correct answer. (3.5marks)

- i) A triangle is made up of _____ line segments.
 b) Three b) four c) five
- ii) A quadrilateral is made up of _____ line segments.
 b) Three b) four c) five
- iii) An angle larger than a right angle is called a _____ angle.
 b) Acute b) obtuse c) right
- iv) When two lines intersect and the angle between them is a right angle, then the lines are said to be _____
 a) parallel b) perpendicular c) intersecting
- v) A triangle having three unequal sides is called a _____ triangle.
 b) Scalene b) Isosceles c) equilateral
- vi) If any one angle is a right angle then the triangle is called an _____ angled triangle.
 b) Acute b) right c) obtuse
- vii) If we combine four cube than we get _____
 b) Cube b) Sphere c) triangle

Q2] Say true or false.

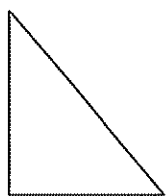
(3 marks)

- i) Each angle of a rectangle is a right angle. _____
- ii) The opposite sides of a rectangle are equal in length. _____
- iii) The diagonals of a square are equal in length. _____
- iv) All the sides of a rhombus are of equal length. _____
- v) All the sides of a parallelogram are of equal length. _____
- vi) The opposite sides of a trapezium are parallel. _____

Q3] Name each polygon and its number of sides.

(4 marks)

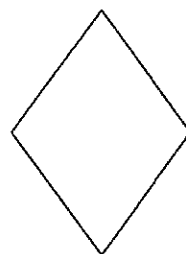
a)



Name: _____

Number of sides: _____

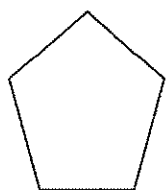
b)



Name: _____

Number of sides: _____

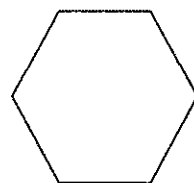
c)



Name: _____

Number of sides: _____

d)

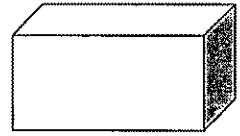


Name: _____

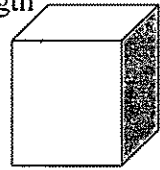
Number of sides: _____

Q4] observe the figure carefully and write the answer. (9 marks)

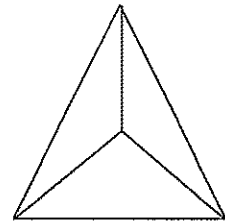
- i) A cuboids looks like a rectangular box
 It has _____ faces
 It has _____ edges
 It has _____ corners (vertices)



- ii) A cube is a cuboids whose edges are all of equal length
 It has _____ faces
 Each face has _____ edges
 Each face has _____ vertices



- iii) A triangular pyramid has a triangle as its base.
 It is also known as a tetrahedron.
 It has _____ faces
 Each face has _____ edges
 Each face has _____ vertices



Q5] Match the following (2.5marks)

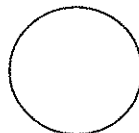
a) Cone



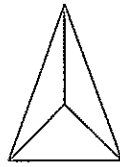
b) Sphere



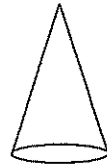
c) Cylinder



d) Cuboid



e) Pyramid



Q 6] Answer the following questions.

(3 marks)

i) What is the shape of the ball?

Ans: _____

ii) What is the shape of the rubber?

Ans: _____

i) What is the shape of the chalk?

Ans: _____

Answer Key – Pre-test

Q1]

- | | |
|--------|-----------|
| i) a | iv) b |
| ii) b | v) a |
| iii) b | vi) b |
| iv) b | vii) a, b |

Q2]

- | | |
|--------|-------|
| i) T | iv) T |
| ii) T | v) F |
| iii) T | vi) F |

Q3]

- a) Triangle, 3
- b) Quadrilateral, 4
- c) Pentagon, 5
- d) Hexagon, 6

Q4]

- i) 6, 12, 8
- ii) 6, 12, 8
- iii) 4, 6, 4

Q5]

- | | | | | | |
|-------|------|------|-------|--------|------|
| a) iv | b) I | c) i | c) ii | d) iii | e) v |
|-------|------|------|-------|--------|------|

Q6]

- | | | |
|-----------|------------|---------------|
| i) Sphere | ii) Cuboid | iii) Cylinder |
|-----------|------------|---------------|

REACTION SCALE

Name of the student: _____

Class: _____

Name of the School: _____

Date: _____

Sr. No.	Statement	SA	A	UD	DA	SDA
1.	Learning through this approach is an interesting experience					
2.	Sometimes it is boring to learn through this approach					
3.	Learning through this approach is time consuming					
4.	It is difficult to interact with teacher while he is teaching through this approach.					
5.	I feel motivated while learning through this approach					
6.	Presentation of the examples / illustrations helped me to understand the concepts well					
7.	Studying through this approach motivated the students to explore examples other than those given in text books.					
8.	Teaching based on this approach gives chance to think independently.					
9.	I feel active and happy in the class when the teacher taught through this approach.					
10.	Study through this approach develop competitive attitudes					