

SUBJECT: MATHEMATICS

CLASS : VI

TOPIC : UNDERSTANDING ELEMENTARY SHAPES

Pre-Content/Content/Post-Content	Learning Outcomes/Objectives	
	General	Specific
<u>PRE-CONTENT</u> - Point, Line, Line segment, Ray, Parts of a Circle, Triangles and Quadrilaterals <u>CONTENT</u> - Line segment - Angle - Triangle - Quadrilateral <u>POST-CONTENT</u> - Construction of 3-D shapes	Students will be able to ✓ understand the basic geometrical concepts ✓ measure and compare Line segments ✓ learn types of angles ✓ learn types of triangles ✓ learn types of quadrilaterals ✓ learn about different 3-D shapes	Students will be able to ✓ recall points, collinear points, non collinear points, lines, line segments, ray, parts of a circle, triangles and quadrilaterals ✓ draw, measure and compare line segments by observation and by measurement ✓ classify angles ✓ classify triangles on the basis of sides and angles ✓ classify the different quadrilaterals ✓ visualize different 3-D shapes and identify similar types from the surroundings

Home Work /Assignments:

1. NCERT exercise/solved examples given as home task.
2. Extra practice questions.

MONTH : JULY'20
TIME : MID TERM

Teacher's Activity	Student's Activity	Teacher's Observations and Remedial
Teacher will recall various concepts by drawing point, line, line segments, ray, etc. and put up questions to the students. draw two line segments and compare them. draw different angles using protractor and then classify them. draw different triangles and measure their sides and angles. conduct the activity to design a quadrilateral (rhombus) by paper folding. (Annexure-5) display different 3-D shapes and discusses their faces, edges and vertices.	Students will take part in the discussion and answer the questions posed by the teacher. compare by measuring and also by mere observation. draw and measure the angles and then classify them. measure the sides and angles and then classify the triangles. perform the activity as per the instructions given, to design a quadrilateral (rhombus) by paper folding and write their observations. (Annexure-5) take part in the discussion and verify the same.	Teacher will write his/her observations after the completion of the topic.

Teaching Aids: Smart board, ICR, 2-D and 3-D shapes.

Methodology/Innovative Methods: Deductive Activity Method, Brainstorming.

Interdisciplinary Links: Linked with Art, Real Life.

H.O.D

Coordinator

Vice-Principal

Principal

Annexure-5

Subject	MATHEMATICS
Class	VI
Chapter/Unit	Understanding Elementary Shapes
Topic	Quadrilaterals (Rhombus)
Time	30 minutes
Nature of Activity	Individual

What will I learn (Learning outcome)?

To design a quadrilateral (rhombus) by paper folding.

Skills:- Psychomotor Coordination, Identifying, Differentiating, Assimilating

What I have to do?

To design a quadrilateral (rhombus).

What do I require?

Chart paper, pair of scissors and adhesive.

What do I need to know?

Concept of Quadrilaterals and its types.

➤ **Teacher's Activity**

Teacher will enable the students to recall the concept of quadrilaterals, its types and will explain the steps of the activity.

How will I proceed?➤ **Student's Activity**

- Take a chart paper and draw a circle of any convenient radius.
- Cut the circle and mark its centre as shown in Fig.1.

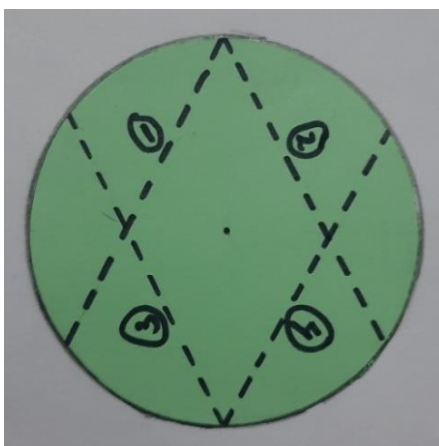


Fig.1

- Now, fold the first arc to the centre of the circle as shown in Fig.2.

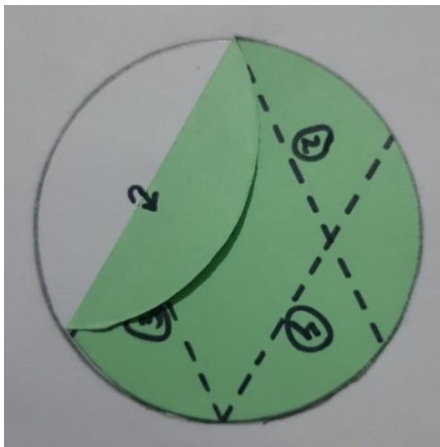


Fig.2

- Then, fold the end of the second chord to the centre of the circle as shown in Fig.3.

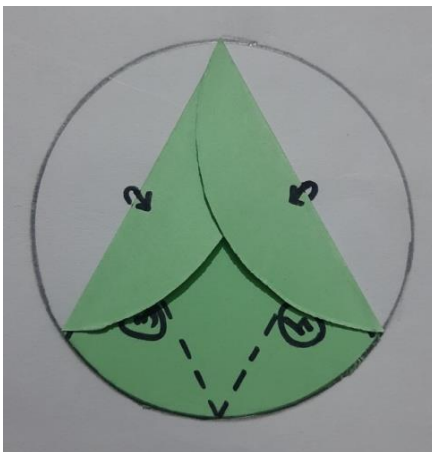


Fig.3

- Repeat the same folding with the end of the third chord as shown in Fig.4.

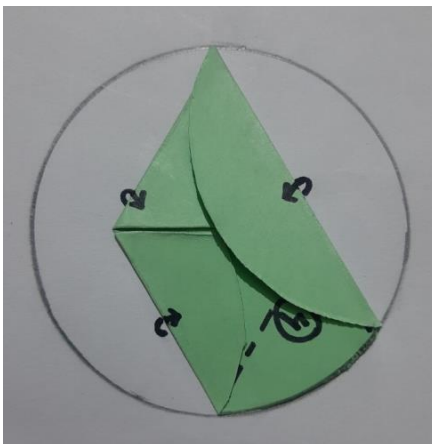


Fig.4

- Fold the fourth chord to the centre and this complete the rhombus as shown in Fig.5.

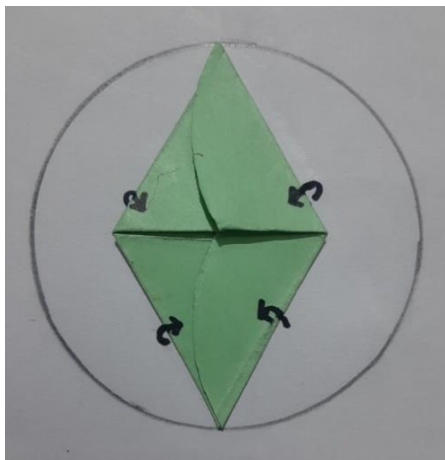


Fig.5

What have I observed?

Complete the following table:

Properties of Rhombus	Yes / No
Opposite sides parallel	
Opposite sides equal	
All sides equal	
Opposite angles equal	
Diagonals are equal	
Diagonals are perpendicular	

What have I learnt?

To design a _____ by paper folding.

What am I curious to know?

Design a parallelogram by paper folding.

Let me evaluate myself

1. Write any five real life examples of rhombus.

- (a) _____
- (b) _____
- (c) _____
- (d) _____
- (e) _____

2. Why a square can be thought of as a special rhombus? Give reason.

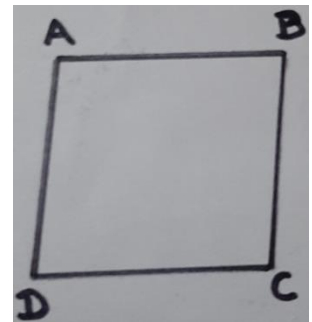
3. Draw a rhombus PQRS. Draw its diagonals and name them. Is the meeting point of diagonal is in the interior or exterior of the rhombus PQRS.

Diagonals: _____

4. Observe the adjoining rhombus ABCD and state the following:

(a) two pairs of opposite sides

(b) two pairs of opposite angles



5. Write any three real life applications of rhombus.

(a) _____

(b) _____

(c) _____