

LESSON PLAN

SUBJECT-MATHEMATICS

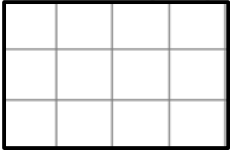
CLASS- V

CHAPTER-11

AREA AND ITS BOUNDARY

LESSON PLAN (CONSOLIDATED)

Chapter	Chapter 11 Area and its boundary
Duration	Total: 5 periods (approx. 40 min each)
Learning Objective	Students will be able to 1) (Remember) recall facts and basic concepts related to area and perimeter. 2) (Understand) explain the meaning of perimeter and area. 3) (Apply) use information and concept in daily life and in solving the problems related to perimeter and area. 4) (Analyse) draw connections among perimeter and area of different shapes. 5) (Evaluate) measure their understanding related to area and perimeter. 6) (Create) Produce innovative ideas/ create innovative problems related to area and perimeter.
Teaching aids and resources	Videos (1.Basic concept of perimeter and area 2. Perimeter of square and rectangle 3. Area of square and rectangle) PPT (recapitulation of the chapter) Concept Map (area and perimeter)
Previous knowledge questions	The students will be asked the following questions: (For perimeter) Q1. Name few shapes you see in your daily life. Q2. Out of these figures which shape has opposite sides equal? Q3. Observe the following rectangle: 

	The measure of AB is 6cm. What is the measure of DC____? The measure of BC is 3cm. What is the measure of AD____? Q4. Find the total length of all the sides in the rectangle in question 3. (For Area) Q1. Name few shapes you see in your daily life. Q2. Out of these figures which shape has all sides equal? Q3. Count the number of squares in the following figure. 
Announcement of topic	(For perimeter) Dear students we define perimeter as total length of boundary of any figure So, students today we'll start with the chapter area and its boundary with the topic of perimeter. (For area) Dear students the area of figure is the number of square units that cover surface of the closed figure. So, students today we'll start with the topic area.
Teaching and techniques	<u>Teaching strategies</u> – 1. Experiential learning (To deduce the formula for area of square and rectangle) 2. Class discussion (To explain the basic concepts of area and its boundary) 3. Problem solving (statement questions relating real life situations)) 4. Power point presentation (To conclude the lesson)

	<u>Techniques</u> - Quiz, daily practice problems, MCQ (To recapitulate)
Content Obligatory Vocabulary (Keywords)	Perimeter-perimeter is the total length of boundary of any figure. Area- area is a region occupied by any surface.
Learning Concepts	1) Concept perimeter 2) Concept of area of regular shapes 3) Concept of area of irregular shapes
Hard Spots/ Focus Spots	1) Statement questions related to perimeter and area. Students find difficult to find that in a statement question either they have to find perimeter or area if it is directly not asked. 2) To find area of irregular figures accurately. Students find difficult to find area of irregular figures accurately.
Experiential Content	1) To deduce the formula of area of rectangle by activity method. 2) To deduce the formula of area of square by activity method.
Subject Enrichment Activities for Internal Assessment	Activity- To find perimeter and area of any square/rectangular figure from daily life objects (cardboard, photo-frame, table etc)
Recapitulation	The chapter will be recapitulated by taking a quiz covering basic concepts in the chapter. 1. What is the perimeter of rectangle and square? 2. What is the area of square and rectangle? 3. How will you determine the boundary of a square garden whose side is given?
Assignment (for assessment)	1) Find length of rectangle if perimeter of rectangle is 200cm and its breadth is 20cm. 2) 148m wire is required to fence a square field. Find one side of field.

	3) How much it will cost to fence a park 89m long and 78 m wide at the rate of Rs.10 per metre? 4) Which is bigger in area: a rectangle 12m in length and 8m in breadth or a square of side 12m? 5) The perimeter of square is 40m. Find its side and area. 6) A room is 6m 15cm long and 250 cm broad. Find the area of the floor of the room.
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LESSON PLAN DAY WISE

SUBJECT-MATHEMATICS

CLASS- V

CHAPTER-11

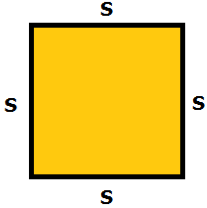
AREA AND ITS BOUNDARY

DAY-1, 2 (The topic will be completed in two periods)

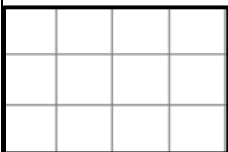
Chapter	Chapter 11 Area and its boundary
Topic	Perimeter
Period Number	1,2 (approx. 40 min each)
Learning Objectives	The learners will be able: 1) To use appropriate terminology linked to perimeter. 2) To recognize problem statements connected to perimeter. 3) To relate the concept of perimeter in daily life situations. 4) To remember the formulae related to perimeter of square and rectangle.
Teaching Aids / Resources	Videos (1.Basic concept of perimeter 2. Perimeter of square& rectangle) PPT (recapitulation of the topic)

	Concept Map (perimeter)
Previous Knowledge questions	The students will be asked the following questions: Q1. Name few shapes you see in your daily life. Q2. Out of these figures which shape has opposite sides equal? Q3. Observe the following rectangle:  The measure of AB is 6cm. What is the measure of DC____? The measure of BC is 3cm. What is the measure of AD____? Q4. Find the total length of all the sides in the rectangle in question 3.
Announcement of topic	Dear students we define perimeter as total length of boundary of any figure So, students today we'll start with the chapter area and its boundary with the topic of perimeter.
Teaching Methodology/ Strategy	Transaction would proceed in the following manner- Suggestive Methodologies: <u>Teaching strategies –</u> 1. Class discussion (To explain the basic concepts of perimeter) 2. Problem solving (statement questions relating real life situations)

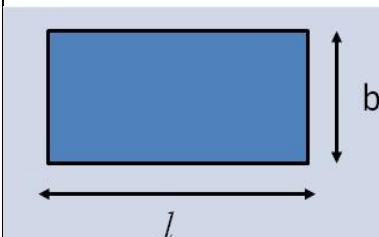
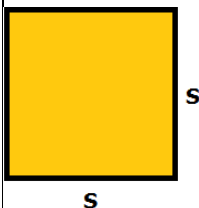
	3.Power point presentation (To conclude the lesson) <u>Techniques</u>- Quiz, daily practice problems, MCQ (To recapitulate) <i>Guided practice followed by Independent Practice</i>- NCERT (Math-magic book 5) questions to be discussed in the classroom.
Content Obligatory Vocabulary (Keywords)	Perimeter- perimeter is the total length of boundary of any figure. Perimeter of rectangle = $2 \times (\text{length} + \text{breadth})$ Perimeter of square= $4 \times \text{side}$
Learning Concepts/ Teaching Points	<u>Lesson beginning</u> (10 minutes): A short introductory video related to the concept of perimeter will be shown. Definition of perimeter will be given to students. (Perimeter-perimeter is the sum of the lengths of sides of any figure. <u>Lesson middle (20 minutes)</u>: Students will get acknowledged with formulae related to perimeter of rectangle and square. Related questions will be solved through lecture method. PERIMETER OF RECTANGLE = $2 \times (\text{LENGTH} + \text{BREADTH})$

	 PERIMETER OF SQUARE = 4 X SIDE Lesson end (10 minutes): Learning will be consolidated by recapitulating the topic.
Hard Spots/ Focus Spots	Statement questions related to perimeter. Students find difficult to find that in a statement question either they have to find perimeter or area if it is directly not asked.
Subject Enrichment Activities for Internal Assessment	Activity- To find perimeter of any square/rectangular figure from daily life objects (cardboard, photo-frame, table etc)
Recapitulation :	The chapter will be recapitulated by taking oral test. 1. What is the perimeter of rectangle? 2. What is the perimeter of square? 3. How will you determine the boundary of a square garden whose side is given?
Assignment (homework)	Day 1- Q1. Find perimeter of rectangle whose length is 20cm and breadth is 15cm. Q2. Find perimeter of square whose side is 435mm. Day 2- Q1. A park is 130 m long and 90 m wide. Garima goes running around it 7 times. How much distance does she cover? Q2. Find the side of the square whose perimeter is 812cm.

DAY-3, 4 (The topic will be completed in 2 periods)

Chapter	Chapter 11 Area and its boundary
Topic	Area (square and rectangle)
Period Number	3,4 (approx. 40 min each)
Learning Objectives	The learners will be able: 1) To use appropriate terminology related to area. 2) To recognize problem statements related to area. 3) To relate the concept of perimeter in daily life area. 4) To remember the formulae related to area of square and rectangle.
Teaching Aids / Resources	Videos (1.Basic concept of area 2. Area of square and rectangle) PPT (recapitulation of the chapter) Concept Map (area)
Previous Knowledge required	The students will be asked the following questions: (For Area) Q1. Name few shapes you see in your daily life. Q2. Out of these figures which shape has all sides equal? Q3. Count the number of squares in the following figure. 

Announcement of topic	Dear students we find area by counting the number of unit squares in the figure. So, students today we'll start with the topic area of regular shapes.
Teaching Methodology/ Strategy	Transaction would proceed in the following manner- Suggestive Methodologies: <u>Teaching strategies</u> – 1. Class discussion (To explain the basic concepts of area) 2. Problem solving (statement questions relating real life situations) 3. Power point presentation (To conclude the lesson) <u>Techniques</u>- Quiz, daily practice problems, MCQ (To recapitulate) <i>Guided practice followed by Independent Practice</i>- NCERT (Math-magic book 5) questions to be discussed in the classroom.
Content Obligatory Vocabulary (Keywords)/ formulae	Area- area is a region occupied by any surface. Area of rectangle= length x breadth Area of square = side x side
Learning Concepts/ Teaching Points	<u>Lesson beginning (10 minutes)</u>: A short introductory video related to the concept of area will be shown. Definition of area will be given to students. (Area- area is a region occupied by any surface.)

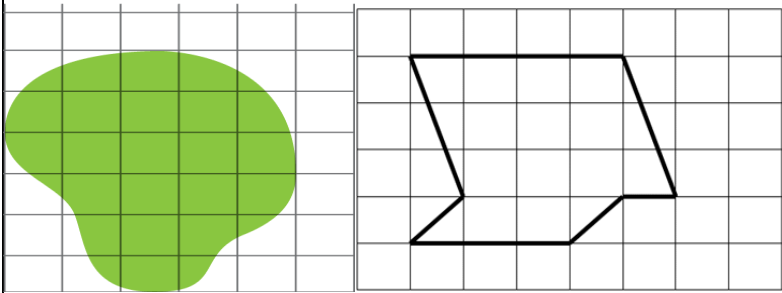
	<u>Lesson middle (20 minutes)</u>: students will get acknowledged with formulae related to area of square and rectangle. Related questions will be solved through lecture method.  Area of rectangle = length x breadth  Area of square = side x side <u>Lesson end (10 minutes)</u>: Learning will be consolidated by recapitulating the topic. Home assignment will be given.
Hard Spots/ Focus Spots	Statement questions related to area. Students find difficult to find that in a statement question either they have to find perimeter or area if it is directly not asked.
Experiential Content	1) To deduce the formula of area of rectangle by activity method. 2) To deduce the formula of area of square by activity method.
Subject Enrichment Activities for Internal Assessment	Activity- To find area of any square/rectangular figure from daily life objects (cardboard, photo-frame, table etc)

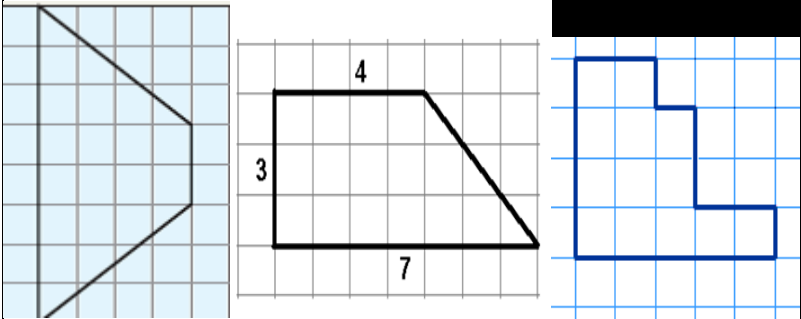
Recapitulation :	The chapter will be recapitulated by taking quiz. 1. What is the area of rectangle? 2. What is the area of square? 3. How will you determine the inner region of a square garden whose side is given?
Assignment (homework)	Day 3- Q1. Calculate area of square whose side is 110cm. Q2. Calculate the area of rectangle whose length is 20 m and breadth is 14m. Day 4- Q1. The perimeter of square is 40cm. Find its side and area. Q2. The perimeter of a room is 18m. It is 4m wide. Find its length and area.

DAY-5

Chapter	Chapter 11 Area and its boundary
Topic	Area of irregular figures
Period Number	5 (approx. 40 min each)
Learning Objectives	The learners will be able: 1) To use appropriate terminology related to area. 2) To calculate area of irregular shapes.
Teaching Aids / Resources	Videos (Basic concept of area of irregular shapes) PPT (recapitulation of topic) Shapes (whose area is to be deduced)

Previous Knowledge questions	The students will be asked the following questions: Q1. Define Area. Q2. How can you find area of regular shapes? Q3. How can you find area of any irregular shape?
Announcement of topic	Dear students we find area by counting the number of squares in the figure. So, students today we'll start with the topic area of irregular figures.
Teaching Methodology/ Strategy	<u>Teaching strategies</u> – 1. Class discussion (To explain the basic concepts of area of irregular shapes) 2. Activity method (To calculate area of irregular figures) 3. Power point presentation (To conclude the lesson) <u>Techniques</u>- Quiz, daily practice problems (To recapitulate)
Content Obligatory Vocabulary (Keywords)	AREA-The area of figure is the number of square units that cover surface of the closed figure.
Learning Concepts/ Teaching Points	<u>Lesson beginning (10 minutes)</u>: A short introductory video related to the concept of area of irregular shapes will be shown and simultaneously rules to draw conclusions on four aspects to calculate area will be given: If the square is fully shaded (filled). Area = 1sq unit If the square is half filled. Area = $1/2$sq unit

	If the square is more than half filled. Area = 1sq unit If the square is less than half filled. Area = 0sq unit) <u>Lesson middle (20 minutes):</u> (Activity) Every child will be provided with 2 shapes each. For the first figure the educator will act as a facilitator and guide the students to find out the area and; for second figure students will be allowed to interact with their peers to calculate area of irregular shape.  <u>Lesson end (10 minutes):</u> Learning will be consolidated by recapitulating the topic.
Hard Spots/ Focus Spots	To find area of irregular figures accurately.
Subject Enrichment Activities for Internal Assessment	Activity- To find area of any irregular figure from daily life objects.
Recapitulation :	The chapter will be recapitulated by taking quiz. Q1.If the square is fully shaded then the area will be equal to ____ sq unit. Q2.If the square is half filled then the area will be equal to ____ sq unit. Q3.If the square is more than half filled then the area will be equal to ____ sq unit.

	Q4.If the square is less than half filled then the area will be equal to ____ sq unit.
Assignment (homework)	 To find the area of given shapes.