

LESSON PLAN 9

CLASS : 7 **TEACHER'S NAME :**

NAME OF THE UNIT	SUB-TOPICS	NO OF PERIODS REQUIRED			Time line for teaching	
		Teaching	Practice	TOTAL	From	To
PERIMETER AND AREA	9.1 AREA OF PARALLELOGRAM	2	3	5		
	9.2 AREA OF TRIANGLE	2	3	5		
	9.3 CIRCLES					
	9.3.1 CIRCUMFERENCE OF A CIRCLE	3	5	8		
	9.3.2 AREA OF CIRCLE					
TOTAL		7	11	18		
	KEY CONEPTS	KEY VOCABULARY				
PRE-REQUISITES	Every Pupil is expected to have basic knowledge in # different geometrical shapes like triangle, rectangle, polygons and circle # finding difference between perimeter and area # Parts and properties of different polygons and circle # nomenclature like base, height, radius,sector,[] etc., # fundamental operations like +, -, x, ÷ # finding areas of rectangle and square.	# perimeter # Area # Parallelogram # square, rectangle # length, breadth # base, height # triangle # congruent			# corresponding # circle # radius, diameter # circumference # circular region # semicircle # sector	

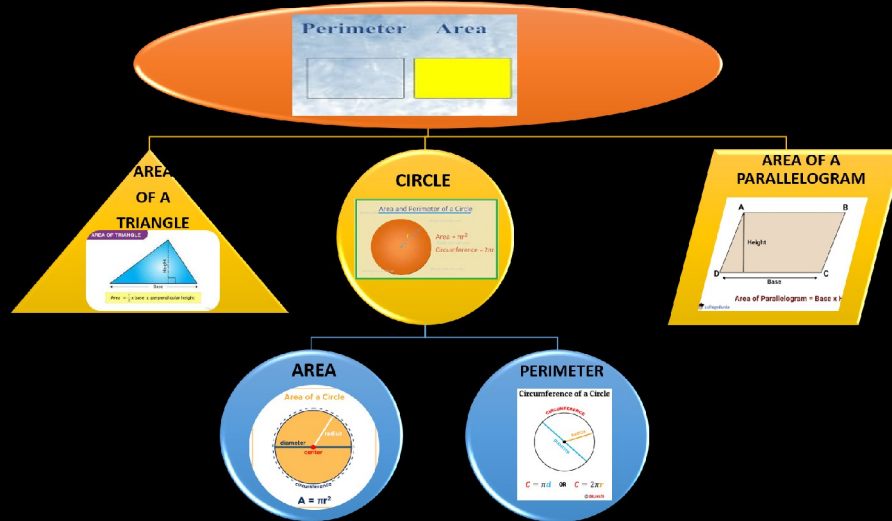
LEARNING OUTCOMES

After Completion of this lesson every student will be able to

- # discriminate between area and perimeter
- # arrive at the formulae for finding areas and perimeters of parallelogram, triangle and circle by various known or practical methods
- # calculate the perimeter and area of given parallelogram, triangle and circle
- # utilize the formulae for finding areas and perimeters of parallelogram, triangle and circle in real life sums.
- # recognize the significance and appreciate the importance of finding perimeter and areas of different geometrical shapes in real life situations.

MIND MAPPING

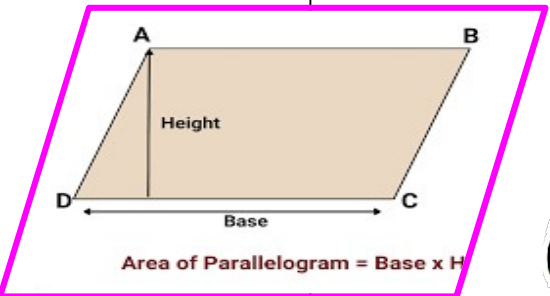
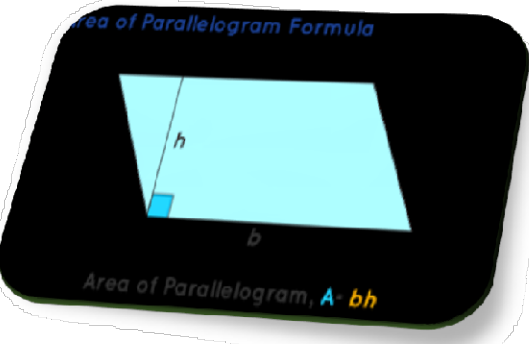
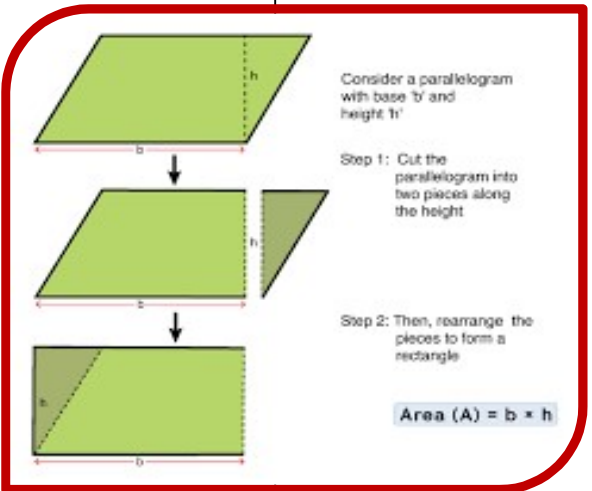
PERIMETER AND AREAS




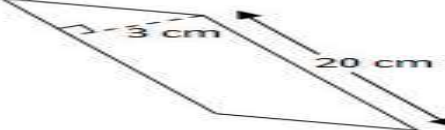


Experience & Reflection

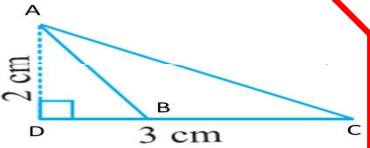
Pupils will recollect their knowledge on different geometrical shapes, their parts and properties and will utilize that knowledge in exploring further more in knowing about perimeters and areas of some more geometrical shapes like parallelogram, triangle and circle

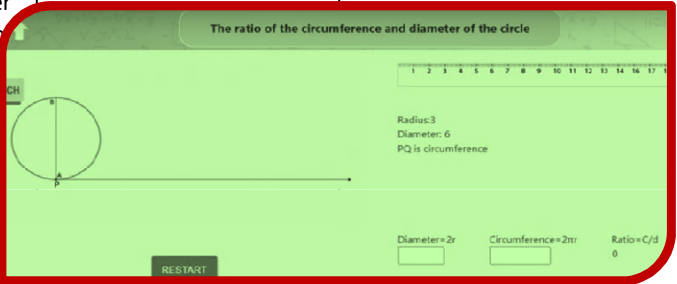
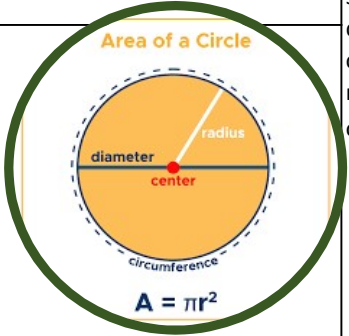
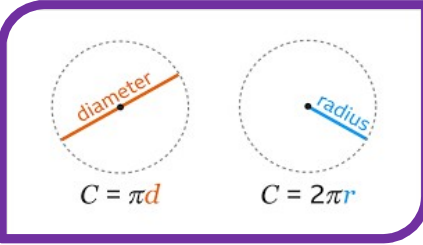
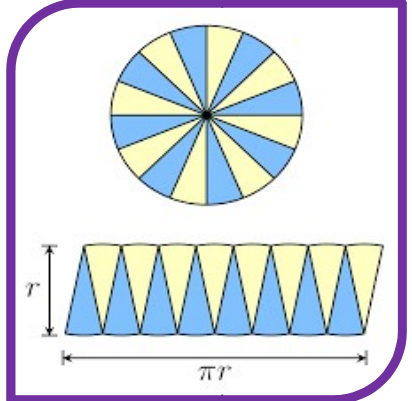
Students will experience the applications of Perimeter and Areas in real life situations.

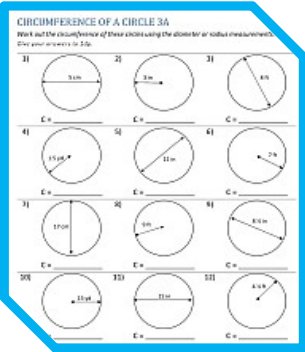
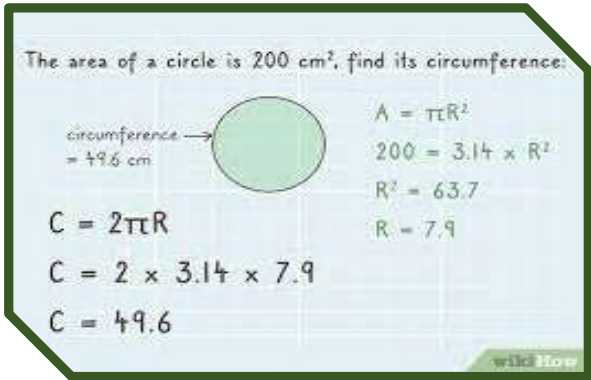
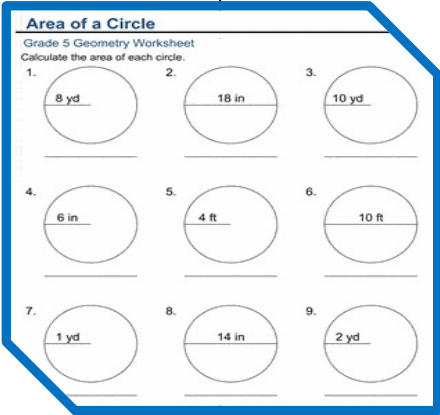
TEACHING PERIOD : 1,2		AREA OF A PARALLELOGRAM	
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS & PRE REQUISITES	Brain storming session involving children with pre-requisites vocabulary and concepts related to previous knowledge. Introduction of new vocabulary and key words associated with the concept # perimeter # Area # Parallelogram # square # rectangle # length # breadth # base # height	* Students read the pre-requisites and answer the questions to the teacher (whole class activity)	Every Pupil will read and write the key words in their note books
MIND MAPPING	Teacher writes the key word "PERIMETER AND AREA" on the black board and will elicit its other related words through questioning and will draw pupils' attention towards key concepts in the lesson	Heterogeneous groups are created. One group will read the words and other will explain the meaning	Pupils individually read the keywords associated with the chapter
CONCEPTUAL UNDERSTANDING LEARNING ACTIVITY	Teacher recalls the knowledge of children on various geometric shapes like rectangle, triangle, parallelogram and circle along with their parts and basic properties. Later teacher displays a parallelogram shaped foam sheet which was cut along its height so that the triangular piece formed out of the cut can be adjusted in such a way that the parallelogram converts into a rectangle after lodging the triangle with reverse erection on the other side of the parallelogram. Now as since pupils are already aware of finding the area of a rectangle they easily find that the area of a parallelogram = base x height (bh)	Heterogeneous groups are formed to participate in the activities	Each student in the group participates in the activities and learns the concept of Rational numbers
	 		
SUMMARY	Teacher writes the summary of the concept in a step wise procedure and asks children to note and read	pupils will note down and read the summary in groups	every individual reads the summary and notes it down
ASSESSMENT	Teacher asks children to solve the sums of try these section, Think Discuss & Write along with example sums and exercise sums of 9.1	every group will do the sums by discussion among each other	every individual solves the sums on their own

PRACTICE PERIOD: 1,2,3		AREA OF A PARALLELOGRAM	
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # perimeter # Area # Parallelogram # square # rectangle # length # breadth # base # height	Whole class activity : one child comes to the board and reads the key words loudly and the remaining class follows.	Every child comes to the board and reads the key words and notes them down in their note books
SIMILAR LINES READING	Teacher finds the area of some parallelograms using the formula found and will ask children to find the areas of some more parallelograms using similar lines	Each group will read the similar lines and will frame some more by discussion	Every Individual prepares their own similar lines using the lines prepared by the teacher
	<div style="border: 2px solid red; border-radius: 15px; padding: 10px; display: inline-block;"> <p style="text-align: center;">Find the Area:</p>  <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <p>$b=8.6\text{m}$</p> <p>$h=10.3\text{m}$</p> <p>$A=bh$</p> <p>$A=8.6 \cdot 10.3$</p> <p>$A=88.58$</p> </div> <div style="text-align: right;"> <p>10.3</p> <p>$\times 8.6$</p> <hr style="width: 50px; margin: 0 auto;"/> <p>88.58</p> </div> </div> </div>	<div style="border: 2px solid purple; border-radius: 15px; padding: 10px; display: inline-block;"> <p>a) </p> <p>b) </p> <p>c) </p> </div>	
SUMMARY/ SYNOPSIS	Teacher once again writes important key words and summary of the concept and asks children to read,note down and practice.	pupils will note down and read the summary in groups	every individual spells and reads the summary and notes it down
WRITING/ EDITING	Teacher guides children in doing sums of exercise 9.1 on their own and checks their writings	One group will check the writings of the other and vice versa	Slow learners are focused and teacher will ascertain that every individual learns the concept in the forth coming practice sessions

TEACHING PERIOD : 3,4		AREA OF A TRIANGLE	
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS	Brain storming session involving children with key words # base, height # triangle # congruent	Students read the keywords answer the questions to the	Every Pupil will read and write the key words in their note books
CONCEPTUAL UNDERSTANDING LEARNING ACTIVITY	Teacher once again conducts an activity in finding the area of a triangle as it was done in the case of finding the area of a parallelogram by cutting any type of triangle into 4 pieces one cut along its height and another cut passing through the mid points of two sides other than base. By properly lodging the pieces, we can form a rectangle and can find the area of triangle with the help of rectangle formula.	pupils are divided into heterogeneous groups and engaged in the activity	Each student in the group participates in the activity and learns the concept
SUMMARY	Teacher once again writes important key words and summary of the concept and asks children to note down and adopt.	Pupils will note down and read the summary in groups	Every individual reads the summary and notes it down and adopts the procedure
ASSESSMENT	Teacher gives some questions from Try These sections as well as sums from exercise 9.1 and examples as well and asks children to do those sums	Every group will do the sums by discussion among each other	Every individual solves the sums on their own

PRACTICE PERIODS: 4 to 6		AREA OF A TRIANGLE	
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # base, height # triangle # congruent	Whole class activity : one child comes to the board and reads the key words loudly	Every child comes to the board and reads the key words and notes them down in their note
SIMILAR LINES READING	<p>Teacher solves some problems related to finding the area of a triangle using the formula derived and will ask children to solve some more by watching similar lines.</p> <div style="border: 2px solid red; padding: 10px;"> <p>Find the area of each of the following triangles:</p> <p>Height = $h = AB$ = 2 cm</p> <p>Base = $b = BC$ = 3 cm</p> <p>Area of $\triangle ABC$ = $\frac{1}{2} \times b \times h$ = $\frac{1}{2} \times 3 \times 2$ = 3×1 = 3 cm^2</p> <p>Area of $\triangle ABC$ is 3 cm^2</p> </div> 	Each group will read the similar lines and will frame some more by watching them	Every individual will watch the similar lines and will frame some more
SUMMARY/ SYNOPSIS	Teacher once again writes important key words and summary of the concepts covered and asks children to note down and adopt.	Pupil groups will read and adopt the procedure	Teacher focuses on every individual so that each one learns the concept in successive upcoming practice sessions
WRITING/ EDITING	Teacher gives some questions from Try These sections and guides them in doing some sums of examples and exercise 9.1 and teacher checks the writings of children	One group will check the writings of the other and vice versa	

TEACHING PERIOD : 5,6,7			
CIRCLES, CIRCUMFERENCE OF A CIRCLE, AREA OF CIRCLE			
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS	Brain storming session involving children with key words # circle # radius, diameter # circumference # circular region # semicircle # sector	* Students read the key words and answer the questions to the teacher	Every Pupil will read and write the key words in their note books
CONCEPTUAL UNDERSTANDING	<p>Teacher conducts an activity involving heterogeneous groups in finding the perimeter of circle. Teacher gives bangles of different sizes to each group and asks them to measure the length of each bangle using a ruler .For this they will be instructed to mark a point on the circumference of the bangle. Later they will be asked to roll the bangle along a scale by placing the marked point on the bangle at 0 on the scale. With the help of this teacher makes children understand that the ratio of the circumference of a circle to the diameter is a constant and is equal to π ($C/d = \pi$) which therefore leads to Circumference $C = \pi d$</p> <p>Later teacher conducts an another activity by using a circular foam sheet which was cut into sectors and places those sectors in opposite directions to make the arrangement resemble a rectangle. Here as since the circumference of the circle is cut into 2 equal parts, the length of the rectangle formed will be 'πr' and breadth will be 'r' which makes the area of the rectangle as $\pi r \times r = \pi r^2$ nothing but the area of the circle.</p>		Every child participates in the activity and understands the concept
			
LEARNING ACTIVITY			
SUMMARY	Teacher writes the summary of the concept discussed and asks children to read, note down and adopt	pupils will note down and read the summary in groups	every individual reads the summary and notes it down and adopts the procedure
ASSESSMENT	Teacher gives some questions from Try These section and exercise sums of 9.2 and asks children to solve those sums	every group will do the sums by discussion among each	every individual solves the sums on their own

PRACTICE PERIODS: 7 to 11			
CIRCLES, CIRCUMFERENCE OF A CIRCLE, AREA OF CIRCLE			
CONCEPTS/STEPS	TEACHER ACTIVITY (I DO)	GROUP ACTIVITY (WE DO)	INDIVIDUAL ACTIVITY (YOU DO)
KEY WORDS READING	Teacher writes the key words from previous class's teaching period and asks children to read and write them in note books # circle # radius, diameter # circumference # circular region # semicircle # sector	Whole class activity : one child comes to the board and reads the key words loudly and the remaining class	Every child comes to the board and reads the key words and notes them down in their note books
SIMILAR LINES READING	Teacher will solve some exemplary sums involving areas and perimeters of a circle and will ask children to do some more worksheets by watching similar lines	Each group will read the similar lines and will solve some more by discussion	Every Individual prepares their own similar lines using the lines prepared by the teacher
			
SUMMARY/ SYNOPSIS	Teacher once again writes important key words and summary and asks children to read ,note down and adopt.	Pupil groups will read the summary and utilize	Teacher focuses on every individual so that each one knows
WRITING/ EDITING	Teacher asks children to solve the sums of exercise 9.2 on their own and teacher checks the writings of children	One group will check the writings of the other and vice versa	and adopts the concept learnt in successive upcoming practice sessions