

Mathematics Lesson Planning based on 5E model

Out of Many Models of teaching under Constructivist approach, *5E model* is one of the most popular and recognized Models throughout the world (NASA, 2013). Steps followed are:

- 1.Engage** – Students are engaged in the lesson by asking questions on demonstrations/observations/making predictions etc.
- 2.Explore** – Students discuss with peers on demonstrations/observations/making predictions etc.
- 3.Explain** – Students explain on the concept based on the teachers quarry.
- 4.Elaborate** – Student justifies their views with further explanation and teachers bridges the gap between old and new concept of the students.
- 5.Evaluate** – The teacher informally assess students by asking questions and checking their work.

LESSON PLAN FORMAT

TIME	STEPS	TEACHERS ACTIVITIES	STUDENTS ACTIVITIES	TLM
	Engage			
	Explore			
	Explain			
	Elaborate [#]			
	Evaluate [#]			

Home Assignment: (Some exercise problems based on the concept been discussed may be given)

Closure/Reflection: (Describe how you will bring your lesson to a meaningful closure that summarizes the lesson and provides with information on what students have learned and need to learn in the future, Also may mention necessary changes required for prevailing better class on the concept)

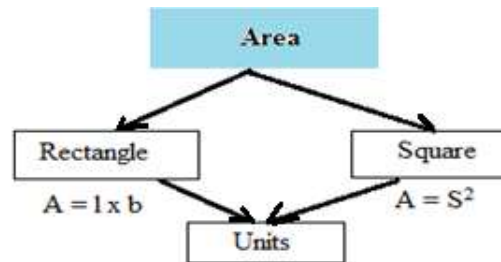
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MODEL LESSON PLAN

Name of the School: *ABC*
Class: VII
Average age: 13+ yrs
No. of students: 30
Duration: 40 mins
Date: 22/8/

Name of teacher: Sanp
Subject: Mathematics
Unit : 18
Topic : Area of Rectangle and Square
Name of the book : Mathematics
Publisher : SCERT, Kohima.

Concept Mapping:



Learning Outcomes: Student will:

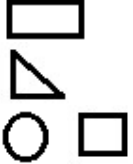
1. Know the term Area.
2. Understand relationship of Area, Length and Breadth of a Rectangle and Square.
3. Apply concept of Area to solve problems.
4. Analyze word problems to find Area, Length or Breadth from a given conditions.
5. Evaluate among different types of Rectangle and square.



Approach: Constructivist (*5E Model*)

Method: Demonstration cum Explanation, Problem Solving

Technique: Activity based

TLM: Models of Rectangle, Square, Triangle, Circle and Graph Paper.

TIME	STEPS	TEACHERS ACTIVITIES	STUDENTS ACTIVITIES	TLM
2 min	Engage	Shows Models of one Rectangle, Square, Triangle and Circle to identify them. Students groups are asked draw Rectangle or Square on the graph paper of any shape and look for the answer of the following: 1. Shade the region covered by the quadrilateral, □ABCD. 2. Count total number of square boxes in the shaded region, □ABCD. Ans:..... 3. Count number of square boxes on the, Side AB = ; Side BC =..... 4. Find Relationship in the total number of square boxes and number of square boxes on the, Side AB ; Side BC.	Identifies the different shapes. Completes the work with peer help.	Following Models are shown students to identify 
5 min	Explore	Helps student to complete the task (<i>if necessary</i>)	Findings: 2. 56 boxes 3. AB= 8 boxes; BC=7 boxes 4. 56= 8 X 7	
8 min	Explain	Listens students Explanation w.r.t. answers from each group and ask students to justify where ever necessary. Also, provides explanation and justification where ever needed. Compares result of each group to arrive Total No. of Boxes=(No. of Box in Length) X (No. of Box in breadth)	Each representative of the Students group explains of their findings (<i>for each question</i>) to teacher and justifies where ever necessary	

20 min	Elaborate [#]	Relates shaded region to 'Area'. Introduces the Formula, $A = l \times b$, for Rectangle $A = S^2$, for Square; its Units and solves problems 1. If $l = 15$ cm, $b = 10$ cm, then $A = l \times b = 15 \times 10 = 150$ sq.cm 2. (Student groups are given a model of quadrilateral indicating its side's measure and asked to find Area.)	1. Here, $l = 10$ cm, $b = 5$ cm; $A = l \times b = 10 \times 5 = 50$ sq cm 2. Here, $S = 10$ cm, $A = S^2 = 10 \times 10 = 100$ sq.cm.	1.  With measures 2.  With measures
5 min	Evaluate [#]	Solve: 1. If $l = 5$ cm, $b = 10$ cm, then $A = l \times b = 5 \times 10 = 50$ sq.cm 2. If Area of a square is 100 sq cm, what is Side?	Solution: 1. Here, $l = 5$ cm, $b = 10$ cm, therefore, $A = l \times b = 5 \times 10 = 50$ sq.cm 2. $A = s^2 = 100 = 10^2$ Therefore, $s = 10$ cms	

- Home Assignment:**
1. Draw a Rectangle of Length= 15 cm. Breadth= 12 cm, and find its Area.
 2. Draw a Square of Side= 10 cm. and find its Area.
 3. Measure length and breadth of the surface of your reading table than find its Area.

Closure/Reflection:

Developed By

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