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	Learning Support Material	Specific Learning Outcome
	Engage				
	Explore				
	Explain				
	Elaborate[#]				
	Evaluate [#]				

Extended Learning Activities: (Some exercise problems based on the concept been discussed may be given)

Post Learning 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)

Supervisor Remarks:

Signature

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MODEL LESSON PLAN

Date: …….. Period:…….. Duration:……..

Day: …….. Time: 40 min……..

Learner's Institution:…… Name of the Facilitator: …….……

Learners Grade:…….. Facilitator's Language Competency: …….

Number of Learners:…….. Learning Subject:……

Learners Average Chronological Age…… Learning Unit/Chapter:……..

Learners Language Background:…… Learning Topic: Area

Learning Approach: Constructivist (*5E Model*) Learning Textbook:……..

Learning Method: Demonstration cum Explanation, Problem Solving Learning Reference book (if any):……..

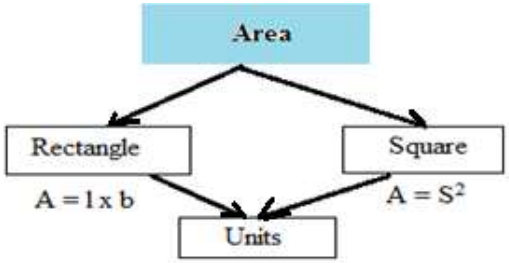
Learning Evaluation Approach: Oral and Written test

Learning Support Materials: Models of Rectangle, Square, Triangle, Circle and Graph Paper.

Assessment of Learners' ZPD: questions, activates, worksheets

Techniques of Scaffolding: prompting, demonstrations

Content/Concept/Algorithm/Learning map:

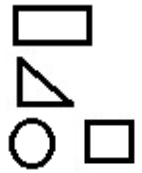


General Learning Outcomes: Student will:

1. Develop Knowledge on Area, terms, formula to calculate.
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.

Specific Learning Outcomes: Student will:

1. recall Area, terms, formula of Rectangle & Square.
2. define Area, terms, formula of Rectangle & Square.
3. distinguish of Area, Length and Breadth of a Rectangle and Square.
4. solve Area of Rectangle & Square.
5. proof of a given problem on area.
6. explain the concept of Area, Length or Breadth from a given conditions.
7. judge difference of area of Rectangle and square.

TIME	STEPS	TEACHERS ACTIVITIES	LERNER'S ACTIVITIES	Learning Support Material	Specific Learning Outcome
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 	Recall Identifies
5 min	**Explore**	Helps student to complete the task *(if necessary)*	Findings: 2. 56 boxes 3. AB= 8 boxes; BC=7 boxes		Solves

			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 (*for each question*) to teacher and justifies where ever necessary		Explains
20 min	**Elaborate**[#]	Relates shaded region to 'Area'. Introduces the Formula, A= l X b *, for Rectangle* $A=S^2$, *for Square*; its Units and solves problems 1. If l=15 cm, b=10 cm, than A= lxb=15x10=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=10cm, b= 5cm; A =lxb=10x5=50 sq cm 2. Here, S=10 cm, A= S^2 = 10 x10 = 100 sq.cm.	1.  With measures 2.  With measures	Solves Explains
5 min	**Evaluate** [#]	Solve: 1. If l=5 cm, b=10 cm, than A= lxb=5x10=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= lxb=5x10=50 sq.cm 2. $A=s^2 = 100 = 10^2$ Therefore, s = 10 cms		Solves

Extended Learning Activities:

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.

Post Learning Reflection:

Supervisor Remarks:

Signature