

SUPPLEMENTAL LESSONS

**Math Grade 3
4th Quarter**



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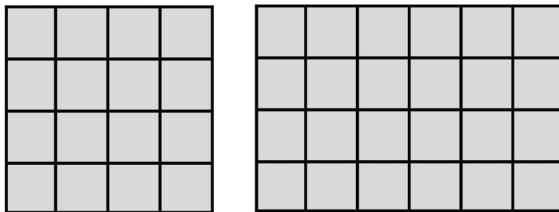
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4th Quarter Grade 3 Supplemental Lesson Plan

Deriving the Formula for the Area of a Rectangle and a Square

Introduction

1. Post the following figures on the board:



2. Ask the pupils: "What figures do you see on the board?"
3. Tell the class that the next lesson is about finding the area of square and rectangle.
4. Then, ask volunteers to count the numbers of squares inside the two plane figures.
5. Let them count aloud.

Body

1. Using the figures in the preliminary activity, guide the pupils in determining the length of the sides of the rectangle.
 - a. Observe the rectangle. How many units is the width of the rectangle? **(4)**
 - b. How many units is the length of the rectangle? **(6)**
 - c. At this point, define with the class the meaning of area. **(Area is the number of square units in a figure.)**
 - d. Then, let the pupils count the number of squares inside the rectangle. **(24)**

Knowledge

Area of Rectangles and Squares

Learning Competency

M3ME-IVe-44

- Derives the formula for the area of a rectangle and a square

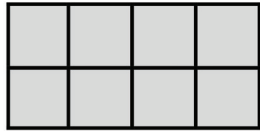
KU

Measurement describes the attributes of objects and events.

KQ

Why do I measure?

2. Engage the class in a folding activity. Demonstrate to the class the steps as the paper is folded.
 - a. Tell the class to bring out a piece of whole paper.
 - b. Fold the paper once horizontally. What is the width? **(2)**
 - c. Fold the paper twice vertically. What is the length? **(4)**
 - d. Then ask: "What do you notice on the paper?" **(Squares are formed.)**
 - e. How many squares are formed when we have a 2-unit width and a 4-unit length? **(8)**



- f. Do another paper folding with other lengths, and let them discover how to find the area of a rectangle.
3. Then ask the pupils: "Based from the folding activity, how can we find the area of a rectangle given the length and the width?" **(Area = length x width)**
4. Discuss how to find the area of a rectangle using the formula. Then, extend the discussion on finding the area of the square.
5. Give the pupils exercises for practice with a spin-off *Pairs Compare* (Kagan, 1998).
 - a. The pupils will form pairs and answer the first question together in a specific time.
 - b. When it is time, the pairs will pair up with another pair to answer the next question.
 - c. The process will continue until all questions are answered.

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6. For skill building, let the pupils practice symmetry using **Learning Modalities**.

Visual: Show to a classmate an example of finding the area of rectangles and squares using objects that can be seen inside the classroom. (Example: Square tiles)

Auditory: Explain to a classmate who is having a difficulty finding the area of rectangles and squares.

Bodily Kinesthetic: Show to a classmate how to find the area of the rectangles and squares by drawing illustrations or by paper folding.

Conclusion

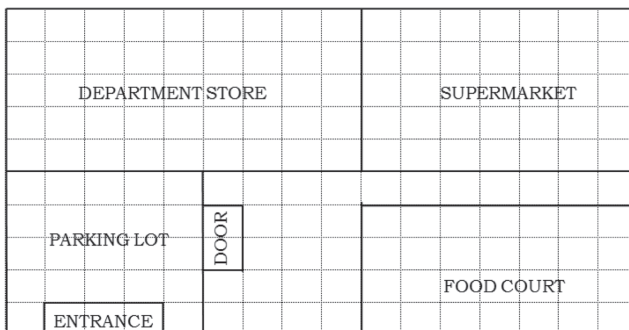
Ask the pupils to complete the following sentences:

- I learned that...
- I discovered that...
- I rediscovered that...
- I realized that...
- I need help on...

Creating Problems Involving Area of Rectangles and Squares

Introduction

1. Show to the class the figure below.



Differentiated Activities

Knowledge

Problem Solving Involving Area of Rectangles and Squares

Learning Competency

M3ME-IVf-47

- Creates problems involving area of rectangle and square

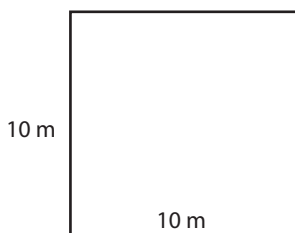
2. Then, ask: "What can we say about the figure?"

Body

1. Present to the class a word problem involving area of rectangles and squares.

Example:

Chy's garden is a square lot with 10 meters length on each side. What is the area of Chy's garden?



2. Ask a volunteer to answer the given word problem.
3. Give another set of problem, but this time, the problem should involve things that the pupils are familiar with or things that can be seen inside the classroom or school.

Example:

The Grade 3 mathematics book measures 9 inches in width and 12 inches in height. What is the area of the book?

4. Let the pupils create a word problem involving area of rectangles and squares which they can see inside the classroom. Remind the pupils that their word problems should answer the following questions:
 - a. What is asked?
 - b. What are the given facts?
5. Ask volunteers to share the word problem they created and ask their classmates to answer it.
6. For practice, conduct a spin-off *Pairs Check* (Kagan, 1998).
 - a. Form pairs.

KU

Measurement describes the attributes of objects and events.

KQ

Why do I measure?

- b. Let each member create their own problem involving area of rectangles and squares.
 - c. Partner A will let Partner B answer his/her created problem and coach him/her.
 - d. Partners will reverse roles for the next questions. Pairs will discuss answers and improve their work.
7. For skill building, let the pupils work on this **Sternberg's Triarchic Activity**.

Creative: Create a word problem involving area of rectangles and squares with illustrations, and present its solution.

Practical: Create a word problem involving area of rectangles and squares and look for a classmate who can answer.

Analytical: Create a word problem involving area of rectangles and squares and be able to explain with a group how to get the answer.

Conclusion

Let the pupils show **Smiley Signal Cards** to represent their understanding of area of rectangles and squares.



1. I can find the area of rectangles and squares given the length and the width.
2. I can create a word problem on area of rectangles and squares.
3. I can explain how to solve for the area of rectangles and squares.

Differentiated Activities

Solving Routine and Non-routine Problems Using Data Presented in a Single-bar Graph

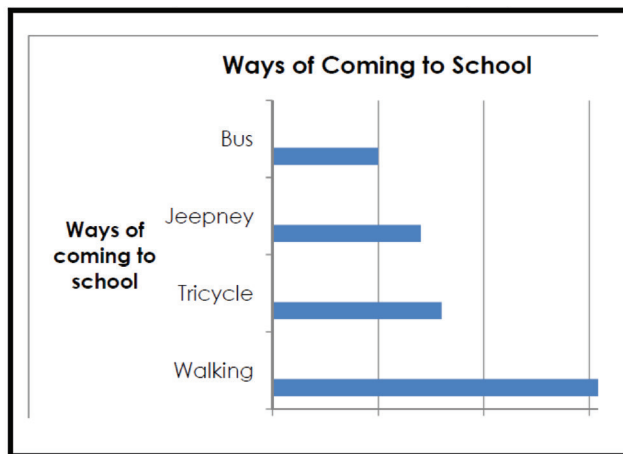
Introduction

Elicit the pupils' prior knowledge on problem solving on data presented in a single-bar graph using KWLH Strategy (Ogle, 1986).

What I Know	What I Want to Know	What I Learned	How Can We Learn More

Body

1. Using the spin-off *Power of Two* (Bellanca, 2009), let the pupils study the graph below, and answer the questions that follow:
 - a. Ask the pupils to answer the questions individually.
 - b. When all the pupils have finished the task, ask them to form pairs.
 - c. Instruct each pair to discuss their answers and if needed, come up with a new and better answer.



(Source: Grade 3 Module DepEd)

Knowledge

Problem Solving
Involving Bar
Graphs

Learning Competency

M3SP-IVh-4.3

- Solves routine and non-routine problems using data presented in a single-bar graph

KU

Data can be organized in different ways.

KQ

How can data be organized?

- 1) Which way of coming to school is used by most pupils?
 - 2) What about the least means of coming to school?
 - 3) Why do you think most pupils walk in coming to school?
2. Conduct a whole-class discussion on answering problems using data presented in a single-bar graph.
 3. Present more examples for recognition. (Sample site: <http://www.mathscore.com/math/practice/Bar%20Graphs/>)
 4. Give the pupils practice exercises with the spin-off *Think-Pair-Share* activity (Lyman, 1981).
 - a. Ask the pupils to answer worksheets individually. (Sample site: (<http://www.math-salamanders.com/image-files/3rd-grade-bar-graph-worksheets-3a.gif>))
 - b. Have the pupils form pairs to discuss their thoughts and compare their answers.
 - c. The pairs will share their answers to the whole class.

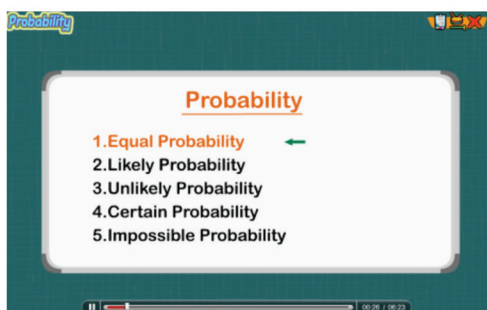
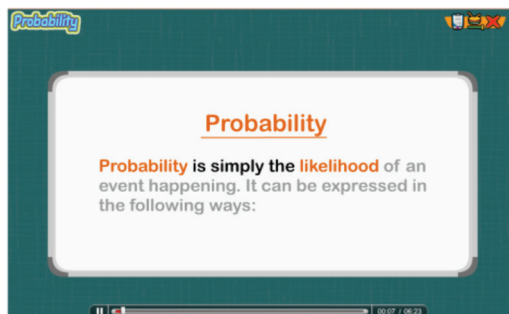
Conclusion

To summarize what the pupils have learned from the lesson, let them accomplish the L and H column. Ask some volunteers to share their learning experiences.

Determining the Likelihood of an Event

Introduction:

Let the pupils watch a video presentation on determining the likelihood of an event. (Sample site: <http://www.turtlediary.com/grade-3-games/math-games/probability.html>)



Body

1. Using the video presentation as a springboard, discuss with the class how to determine whether an event is sure to happen, likely to happen, equally likely to happen, unlikely to happen, and impossible to happen.
2. Give real-life situations that are "sure to happen" and "impossible to happen."
3. Let the pupils answer exercises on determining the likelihood of an event. (Sample Activity from *Learner's Manual, Unit 4, DepEd Mathematics 3*)

Knowledge

Likelihood of an Event

Learning Competency

M3SP-IVj-8.3

- Describes events in real-life situations using the phrases "sure to happen," "likely to happen," "equally likely to happen," "unlikely to happen," and "impossible to happen"

KU

The way that data is collected, organized, and displayed influences interpretation.

KQ

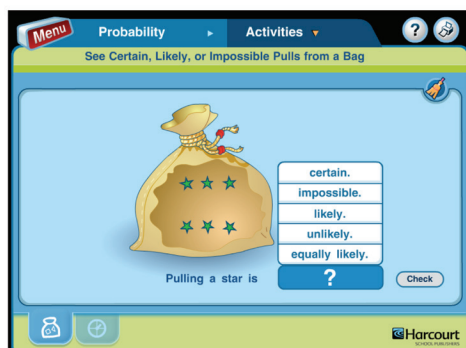
How do people use data to influence others?

Activity 1

What are the chances of each event occurring for you today?
Place a check mark under the correct category for each event
What are the Chances?

	Impossible	Unlikely	Equally Likely	Most Likely	Certain
1) The sun rising					
2) Riding a bike					
3) Climbing Mt. Pinatubo					
4) Losing a tooth					
5) Eating ice cream					
6) Reading a book					
7) Playing a game					
8) Seeing a rainbow					
9) Going to school					
10) Calling a friend					

4. For more practice, engage the pupils in an interactive online activity. (Sample site: http://www-k6.thinkcentral.com/content/hsp/math/hspmath/ca/common/itools_int_9780153616334_/probability.html)



5. For reinforcement, let the pupils work on this **Sternberg's Triarchic Activity**.
- Creative:** Create a game and describe the likeliness of the events.
 - Practical:** Name a popular game and describe the likeliness of the events.
 - Analytical:** Explain to a friend the likeliness of an event in his/her favorite sport.

Differentiated Activities

Conclusion

Ask the pupils to complete the **Learning Log Matrix** to show their understanding of the lesson.

What I already knew...	What's important to remember about it...
This reminds me of...	I am not sure about this...

