Subject/Course **Math Grade 3** Lesson Topic **Measurement Perimeter and Area** Teacher Candidate **Colin Walsh** Lesson Duration **40 min** Date **November 24, 2010**

1. Curriculum Expectations

Overall:

• Estimate, measure, and record length, perimeter, area, mass, capacity, time, and temperature, using standard units;
• compare, describe, and order objects, using attributes measured in standard units.
• solve problems involving the addition and subtraction of single- and multi-digit whole numbers, using a variety of strategies, and demonstrate an understanding of multiplication and division.

Specific:

– estimate, measure (i.e., using centimetre grid paper, arrays), and record area (e.g., if a row of 10 connecting cubes is approximately the width of a book, skip counting down the cover of the book with the row of cubes [i.e., counting 10, 20, 30, ...] is one way to determine the area of the book cover);

-compare and order objects on the basis of linear measurements in centimetres and/or metres (e.g., compare a 3 cm object with a 5 cm object; compare a 50 cm object with a 1 m object) in problem-solving contexts;

– multiply to 7 x 7 and divide to 49 ÷ 7, using a variety of mental strategies (e.g., doubles, doubles plus another set, skip counting).
– solve problems involving the addition and subtraction of two-digit numbers, using a variety of mental strategies (e.g., to add 37 + 26, add the tens, add the ones, then combine the tens and ones, like this: 30 + 20 = 50, 7 + 6 = 13, 50 + 13 = 63);

Integrated (if applicable):

2. Lesson Learning Goal(s) **Key Question: What do I want students to know and be able to do?**

Knowledge and Understanding / Thinking / Communication / Application

Calculate the area of several rectangles and other non-rectangular shapes.
Calculate the perimeter of several rectangles and other non-rectangular shapes.
Solve a word problem involving area and perimeter.

3. Assessment **Key Question: How will I know each student has learned the concept(s)?**

a) Indicator(s) of Lesson Learning Goals:

Calculate the area of several rectangles and other non-rectangular shapes correctly.
Calculate the perimeter of several rectangles and other non-rectangular shapes correctly.
Solve a word problem involving area and perimeter correctly.

b) Assessment Strategies and Tools: (Key Question: What will students be doing and what will I use to assess learning?)

Observation, Questioning, and Preview worksheet Test

4. Differentiated Instruction **Key Question: What will I do to assist individual learners or provide enrichment for others?**	
Accommodation and/or modification: IEP Grade 2 (pattern blocks) Calculator Prompts Questioning	Extension: Calvin's garden has the shape of a rectangle. Its area is 15 square units and its perimeter is 16 units. Draw Calvin's garden. Show your work in numbers, pictures, and words.

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Required teacher preparation/materials needed:
Mad minute worksheet on multiplication facts up to 5 times tables, and preview test sheet

Instructional Plan

Time		Differentiated Instruction	Assessment Opportunities
	Setting the Stage: **Mad minute game (multiplication practice)** **Review strategies for finding area and perimeter** *What is the perimeter of a shape?* *How do I find the sum of the perimeter?* *What is the area of a shape?* *How do I find the total area of a shape?* **Core Learning Activity:** **Calculate the area and perimeter for various rectangles, triangles, and tetrominoes on an activity sheet (preview test)** **(Preview Test)** **Lesson Consolidation/Debriefing with Students:** **Review strategies for perimeter and area.** **Label the lengths and widths of each shape** **(Length x width = Area or count all the square units)** **(Measure each side length and find the sum)**	**Direct Instruction** **Questioning** *What is the perimeter of a shape?* *How do I find the sum of the perimeter?* *What is the area of a shape?* *How do I find the total area of a shape?* **Visual** **Oral communication**	**Questioning** **Observation** **Worksheet test** **Observation** **Questioning**
Apply			

new learning: In class / At home Estimate the area or perimeter of a room in your house, then measure and compare your findings. Which one is greater? Explain the strategy you used to find your answer.			

Post Lesson Reflection

Follow-up/next steps (lesson content/assessment):

Follow-up with particular students (learning and/or behavior):

Opportunities for professional growth: