***The Fence or the Carpet?***

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**Topic**: Perimeter and Area

**Introduction**: In this unit students will understand the concepts of perimeter and area using multiplication and addition.

**Grade level**: Intermediate Elementary (grades 3-5)

**Vocabulary**:

 Perimeter=The distance around a figure.

 Area=The number of square units needed to cover a flat surface.

**Expected Student Outcomes**:

 Understand area and be able to figure it given dimensions.

 Find area by multiplying.

 Compare areas.

 Relate area to distributive property.

 Decompose shapes to find area.

 Find perimeter of a figure.

 Compare area to perimeter.

**Lesson 1**

**Introduction**: Pre-Assessment Quiz

**Instruction**: Go to KhanAcademy.com.

 Watch “Introduction to Area and Unit Squares.”

 Watch “Measuring the Same Rectangle With Different Unit Squares.”

 Watch “Rectangle Area as Product of Dimensions Same as Counting Unit Squares.”

**Assignment**: Complete the following activities on KhanAcademy.com--

 “\*Area 1.”

 “\*Measuring area with unit squares.”

 “\*Finding area by multiplying.”

**Lesson 2**

**Instruction**: Go to KhanAcademy.com.

 Watch “Comparing Areas of Plots of Land.”

**Assignment**: Complete the following activities on KhanAcademy.com--

 “\*Comparing Areas by Multiplying.”

 “\*Area and the Distributive Property.”

**Instruction**: Go to KhanAcademy.com.

 Watch “Area of Rectangles and the Distributive Property.”

 Watch “Calculating the Square Footage of a House.”

**Assignment**: Complete the following activities on KhanAcademy.com--

 “\*Decompose Shapes to find Area.”

**Lesson 3**

**Instruction**: Go to KhanAcademy.com.

 Watch “Intro to Perimeter.”

 Watch “Perimeter of a Shape.”

**Assignment**: Complete the following activities on KhanAcademy.com--

 “\*Perimeter 1.”

 “\*Finding Perimeter.”

**Instruction**: Go to KhanAcademy.com.

 Watch “Comparing Areas and Perimeter of Rectangles.”

**Assignment**: Complete the following activities on KhanAcademy.com--

 “\*Comparing Area and Perimeter.”

**Assessment**: Test

***Pre-Assessment: Perimeter and Area***

1. Find the length of the following lines using centimeters.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Multiply:
6. 5 x 3=\_\_\_\_\_
7. 7 x 9=\_\_\_\_\_
8. 6 x 4=\_\_\_\_\_
9. 2 x 12=\_\_\_\_\_
10. Find the perimeter of the following figures:

4

9

4

10

1. Find the area of the above figures:
2. \_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_
4. Find the area of the following figure:

2

4

7

***Assessment: Perimeter and Area***

9

1. Find the area.

 \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

1. Find the area.

 10

 6 3 5

 4

\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

1. Sue wants to build a flower bed in her yard. She loves flowers and prefers a larger flower bed. Help her decide, which flower bed should she make? One that is 8 ft by 4 ft? Or one that is 10 ft by 3 ft?
2. Use the distributive property to find the area of the following figure.

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1. Find the area of the following figure.

 3

 4 4

8 2

 9

1. Find the perimeter of the figures in problem 2.

\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_

1. Find the perimeter of the figure in problem 5.

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1. In words, explain the difference between area and perimeter.

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**Follow Up:** Students must pass the Assessment test with an 80% score or higher. Students who do not pass the test will be asked to go through the practice exercises on the Khan Academy website a second time. Close monitoring will take place to assure complete understanding of the concepts and a retake test will be administered to assure success.