

\* Students will learn how to compute area and perimeter by creating a floor plan for a house.

#### Introduction

You are a new contractor who is being considered for building a house. Mrs. Myogeto is asking you to come up with a floor plan for her new house that includes a fenced in back yard for her dog Nala. She will look at several different floor plans and choose the best one for her new home.

In order to be an excellent contractor you have to become an expert in finding the area and perimeter of shapes. Let's start designing!

### Task

As a contractor who is building a house, you need to know how to find perimeter and area.

- In order to become an expert on calculation perimeter and area, you will explore several websites to learn the formulas and how to calculate area and perimeter.
- After you have explored these sites and you feel that you understand area and perimeter, you will be working on designing you floor plan for Mrs. Myogeto.
- Once you have completed your floor plan, you will write a thank you letter to Mrs. Myogeto thanking her for considering your floor plan design.

# Process

### Step l:

You will visit my webpage and choose 4 websites (two from each column) under the math section and practice with area and perimeter. Highlight the two in each column you looked at. First column (need 2):

Learning Perimeter and area MathDictionary Math Goodies Perimeter Math Goodies Area.

Second column (need 2): Math Playground Perimeter Exploring Area PerimeterSquare PerimeterRectangle ExploringPerimeter Practicing Area and Perimeter



### Step 2:

When you finish exploring these sites, you will write down two facts, two things you learned, and two things you liked about these site. Turn this paper into your teacher before moving onto step 3.

## Step 3:

When you feel that you understand perimeter and area well enough to do it on your own, you may begin creating your floor plan for the house using graphing paper. Click on the link on my webpage titled "Sample Floor Plans" to view some samples online. \*\*\*Note: you cannot copy from the website. It is just for you to get some ideas.

What you must include:

- A living room, kitchen, 2 bedrooms, 2 bathrooms and a garage. (all on one level)
- Each room must be labeled and colored a different color.
- A deck colored in brown.
- A fenced in backyard colored in green.
- A garden in the backyard shaped like a square colored brown.

You may choose to add up to three more rooms. Examples could be a theater, a pool room, library or a basketball court. You choose but remember, this house is for Mrs. Myogeto. What might she want in a house?

After completing your room designs you must calculate:

- The area and perimeter for each room.
- The area and perimeter for the deck.
- The area and perimeter for the fenced in backyard.
- The area and perimeter of the whole house.

(list these on a separate sheet of paper.)

### Step 4:

Letter Requirements:

Now that you are finished with your floor plan design, you need to write Mrs. Myogeto a letter thanking her for choosing you to create a floor plan. In your letter you need to list out your calculations for each room. (Be careful with spelling, grammar, and punctuation.)