

Design a Reading Nook

3rd Grade Math Project · Design & Building

Grade 3 · Remedial

Name: _____ Date: _____ Class: _____

The Challenge

Our class is building a cozy reading nook! You are the designer, and every rug and mat must fit.

You will make: Reading Nook Floor Plan

I can…

- I can find area by counting unit squares and name it in square units.
- I can find the area of a rectangle by multiplying side lengths.
- I can find the area of a rectilinear figure by splitting it into rectangles.

Materials

- Pencil
- Grid paper
- Colored pencils

Steps

1. Part 1: The Rug
2. Part 2: Break Apart the Mat
3. Part 3: The L-Shaped Corner
4. Part 4: Floor Plan
5. Check your work and share your reading nook floor plan.

Look for the yellow Hint boxes. They show a first step.

Part 1: The Rug

The rug is 4 feet long and 3 feet wide. Each grid square is 1 square foot.

1. Draw the rug on grid paper. How many square feet does it cover?

Hint: 3 rows of 4 squares.

2. Write a multiplication equation for its area.

Hint: Length × width.

Part 2: Break Apart the Mat

A floor mat is 6 feet by 6 feet. Split the long side into 2 and 4.

3. Find the area of each part.

Hint: Each part is a rectangle.

4. Add to find the area of the whole mat.

Hint: Add the two areas.

Part 3: The L-Shaped Corner

The corner is 6 feet across the bottom and 5 feet up the left side. The bottom part is 2 feet tall, and the top part is 3 feet wide.

5. Split the corner into two rectangles. Write the area of each.

Hint: The top part is $5 - 2 = 3$ feet tall.

6. What is the area of the whole corner?

Hint: Add the two areas.

Part 4: Floor Plan

Draw your nook with the rug and the mat in the L-shaped corner. Label each area.

7. Your plan with labels.

Hint: Use one color for each rectangle.

Extension Challenge

Find two different rugs that each cover 24 square feet.

How your project will be scored

Learning target	4 Exceeds	3 Meets	2 Approaching	1 Beginning
I can find area by counting unit squares and name it in square units.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can find the area of a rectangle by multiplying side lengths.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can find the area of a rectilinear figure by splitting it into rectangles.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can explain my thinking with pictures, numbers and words.	Clear for every part	Clear for most parts	Some explanation	Little explanation
My reading nook floor plan is complete and matches my math.	Complete, neat, accurate	Complete	Partly complete	Not complete