

Are you ready to make up some of your own multiplication problems and then show how it looks in an area model?

- You will be playing a matching game.
- Work in teams of 4.
- Each person in your group gets to create a multiplication problem and an area model that matches.
- Check each other's work.
- Then, trade your cards and area models with another group.
- Now, find the matches of the new cards and models that you got from the other group!
- Be sure to show the area of each colored part on the back of the index card, and then show that when you add up the parts, it equals the answer to the multiplication problem.
- Did you match them correctly? Ask the team who made them.

First - let's review!

Solve:

$$3 \times 2 =$$

$$3 \times 20 =$$

$$3 \times 200 =$$

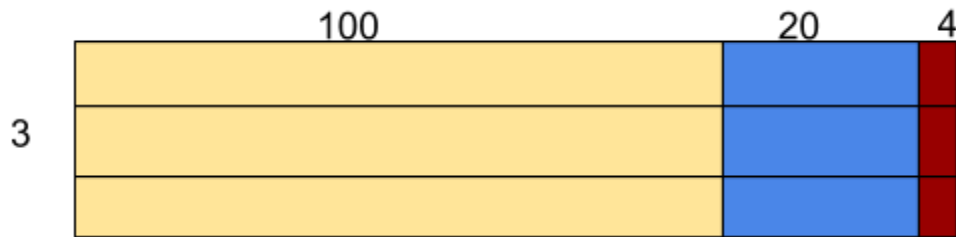
$$3 \times 2000 =$$

What's an Area Model? (In your own words)

Name: _____ Period: _____ Date: _____

Area Model Multiplication: Multiply 1 digit by 3 and 4 digit numbers

Math 4



What is the multiplication problem for the area model above?

Work with your team to draw an area model for the following:

A. 7×512

Name: _____ Period: _____ Date: _____

Area Model Multiplication: Multiply 1 digit by 3 and 4 digit numbers

Math 4

Time to PLAY!

Here is the color code:

Ones - RED

Tens - BLUE

Hundreds - YELLOW

Thousands - GREEN

Each of you will create your own multiplication problem.

Be sure to follow the rules for each round.

Round 1: 2 digit by 1 digit - with graph paper and counting the squares

Round 2: 3 digit by 1 digit - less than 130 x 1 digit (graph and count squares)

Round 3: 3 digit by 1 digit - Modeled, with dimensions labeled (not all squares need to be counted)

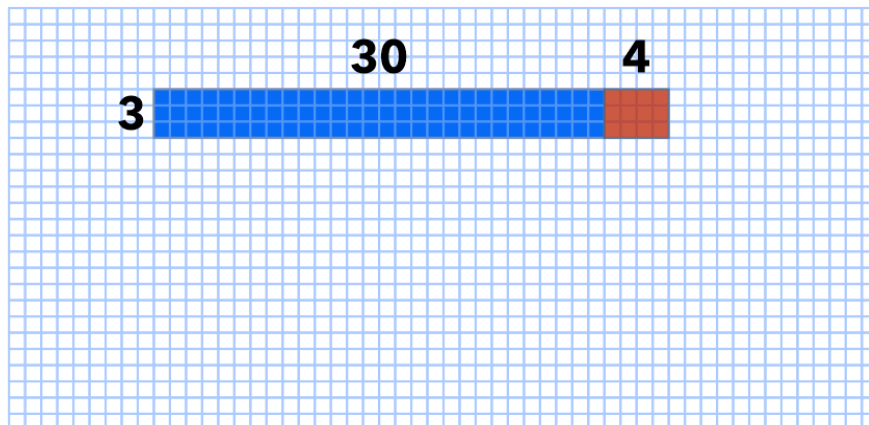
Round 4: 4 digit by 1 digit - Modeled, with dimensions labeled

Round 5 : 4 digit by 1 digit - Modeled, with dimensions labeled

Here's an example:

Multiplication Problem - 34×3

Make a model on your graph paper. Like this



Now check each other's work.

Trade your problems and models with another team.

Now try to match their problems and models.

Good luck! Did you find the matches?

When you are finished with Round 1, move on to Round 2.

But watch out! The numbers get bigger.

Name: _____ Period: _____ Date: _____

Area Model Multiplication: Multiply 1 digit by 3 and 4 digit numbers **Math 4**

Practice and reflection

Draw and label an area model for the following:

$$7 \times 32$$

$$8 \times 675$$

$$2 \times 5279$$

$$9 \times 7298$$

Area Model Multiplication: Multiply 1 digit by 3 and 4 digit numbers **Math 4**

Write the multiplication problem for the following models:
Write the area of each rectangle and solve

