Calculating Area - 3rd Grade

TEK 3.11 C Use concrete and pictorial models of square units to determine the area of two-dimensional surfaces

Put grid paper behind shapes to calculate the perimeter/ **Area** for 3rd grade, and calculate volume for 4th grade since they do not use formulas for these two objectives.

Export (save) graph paper as a Jpeg from Pixie 2 or another website.

Open Sketch up.

➢ **Go to File>Import**
Navigate to the saved grid picture. (note: you may have to use the drop down arrow to choose all formatted pictures so you can see it) since it will only show files with the sketch up file extension from this view.)

Place the grid on the screen in the top left quadrant. Click in the white space to set. Now click on the grid paper again to select. Now click on the Move tool.

Then with your left hand, hold down the Control key and as it moves away from the grid it makes another copy. Repeat until you have grids in all four parts.
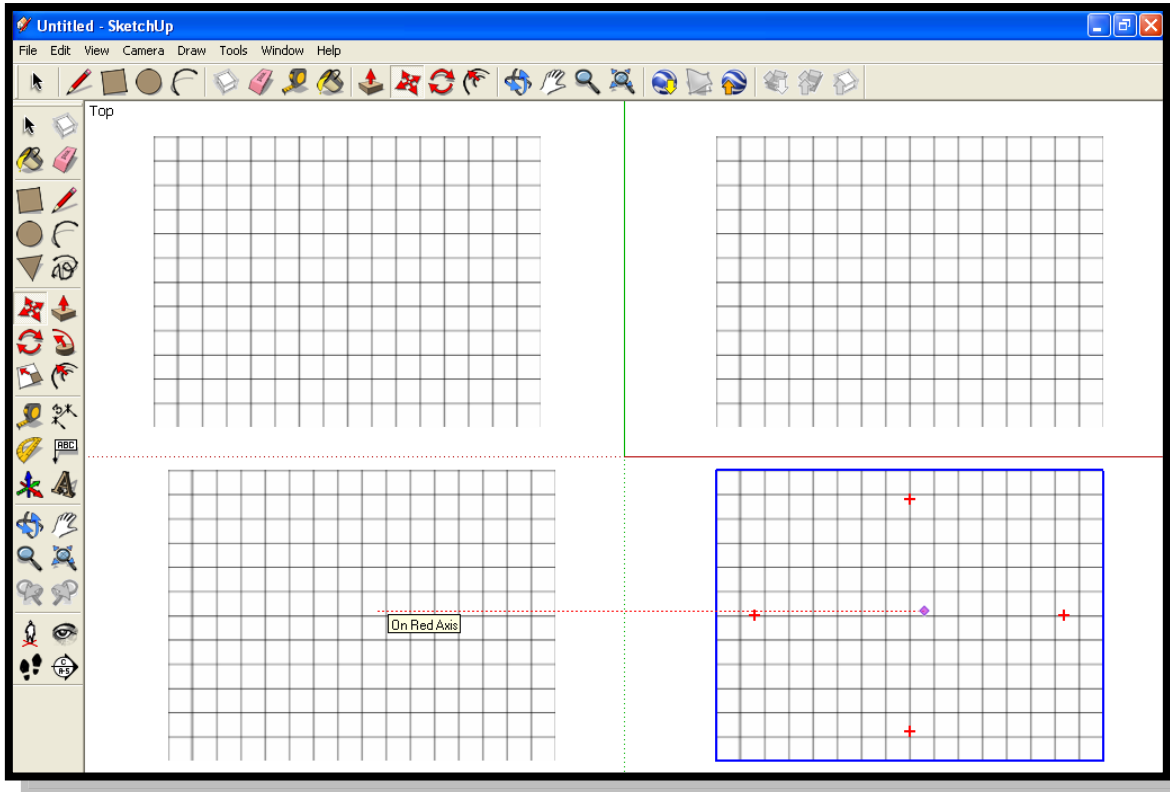
Click on the rectangle tool. and draw a rectangle on the grid. Use purple points as a guide.

➢ **Each square will represent one square inch.**
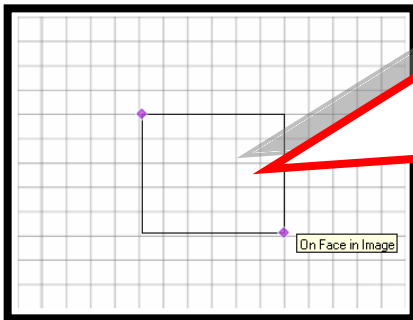
Click on one of the corners of one of the small squares to set your first corner (vertices.) You will see purple points on the vertices.

Now drag your mouse to the right and click on another corner to set the 2nd vertices.

Last, drag your mouse straight down and click on another corner when you see a purple point. Now it will fill in your whole rectangle so that it has a face.

➢ **Press the space bar to set the rectangle and get back to the arrow selection tool.**

➢ Since we need to count the number of squares inside we need to make it transparent so we can see inside of it since you can see right now that it is a solid figure.
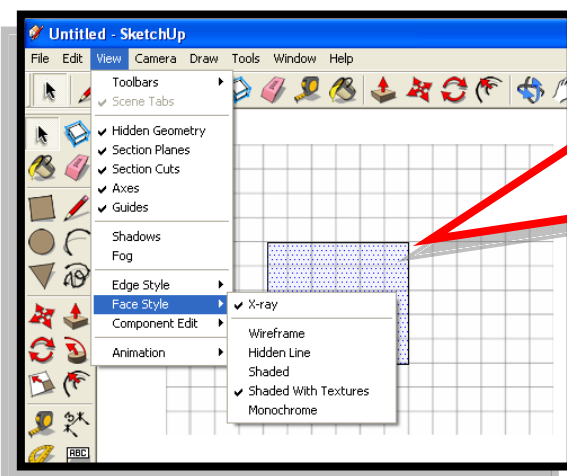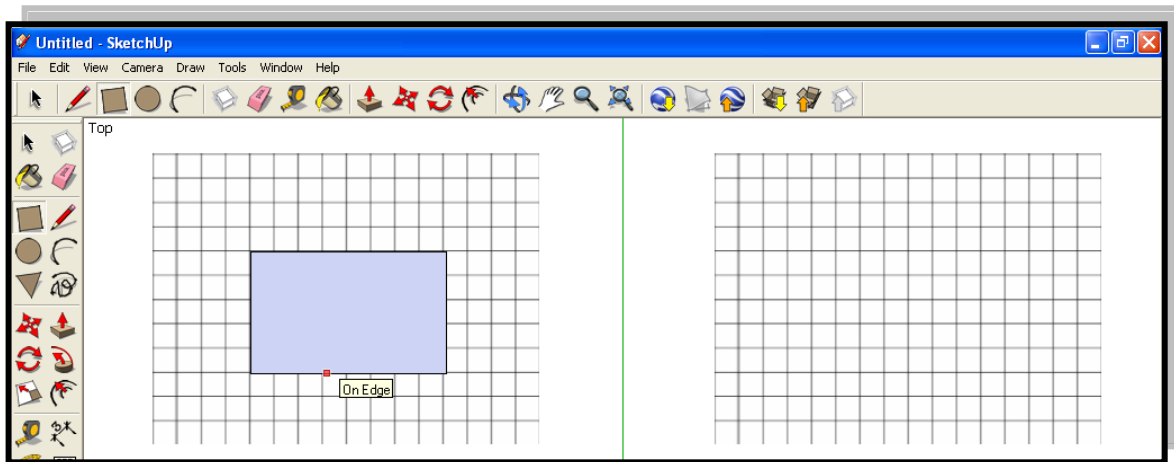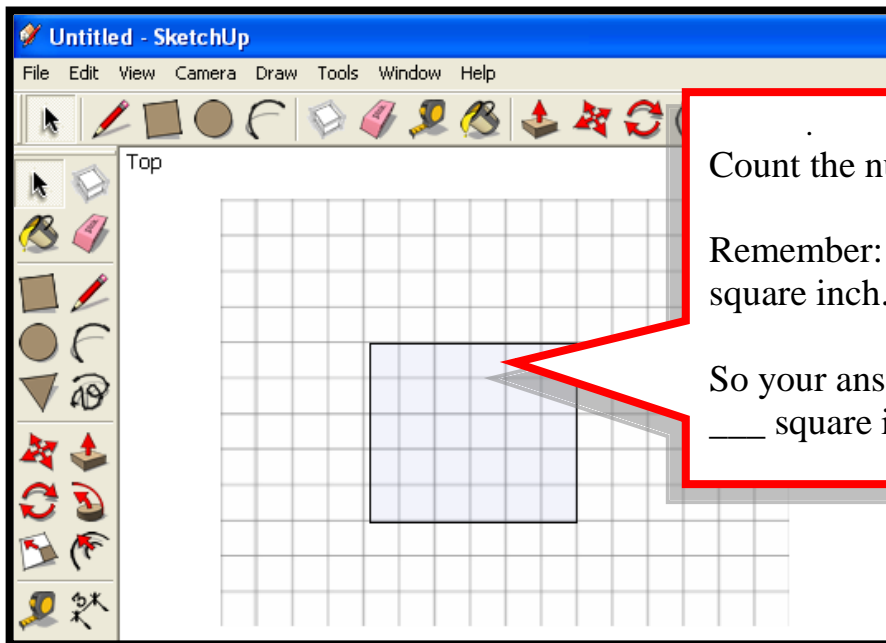
Now click on the rectangle face to select it.

Click on View in the menu bar

Scroll down to

- Face Style>Choose X-Ray
- Leave Shaded with Textures checked.

Now click somewhere outside of you your rectangle and you will that it is transparent so you can see inside to count the number of squares to calculate the perimeter **and area.**

Count the number of squares.

Remember: Each square will represent one square inch.

So your answer will be written down as ___ square inches.

Long way:
You can count individual squares

Faster way: Count the number of squares in a row (which is 6) and multiply it by then number of squares in the columns (which is 5)

5 x 6 = 30

In this example, this rectangle is **30 square inches.**

> **Draw some more rectangles and calculate the area in square inches.**