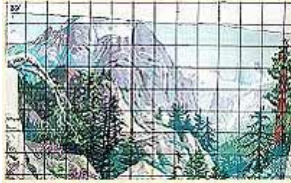


# The Great Cartoon Blowup Activity

One of the practical implications for studying similarity is in the area of art. An example would be the ability to enlarge a picture to become a full wall mural. In a joint effort, the students of Yosemite High School, the Guild of Mountain Artists, and Vision Academy have joined hands as volunteers to create a spectacular 195-foot mural in the village of Oakhurst, California.



The way they accomplished this goal was by using first drawing out a miniature of the mural on 8 ½ X 11 sheets of paper.

Then they drew a grid on their finished design and a proportional grid on the cement wall.



Finally they used the grid and start drawing the mural on the cement wall.

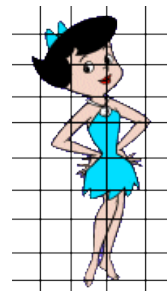
In this activity we are going to do something “similar.” We are going to start our project with a small cartoon and then “blow it up” to a larger size.

## INSTRUCTIONS

1. To begin, select and print a cartoon  
*For example, I have chosen Betty Rubble.*



2. Draw a grid of squares of your small cartoon. I would suggest doing 1cm by 1cm boxes.



3. Draw this enlarged grid on your large paper. Use a straightedge. Be sure to keep all of your squares the same size

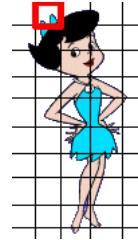
NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ BLOCK: \_\_\_\_\_

4. Now here the fun starts. Begin by labeling the grids with letters across the columns and numbers at the front of the rows.

a	b	c	d	e
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

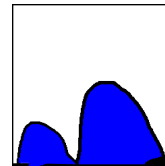
5. At this point, you are ready to DRAW. Remember, you do NOT have to be an artist to produce an impressive enlargement.

All you do is draw EXACTLY what you see in each small cell into its corresponding large cell.



For example, in cell b1 of the "Betty" enlargement we see the tips of her bows and a tiny bit of her hair.

Remember, you do NOT have to be an artist to produce an impressive enlargement. All you do is draw EXACTLY what you see in each small cell into its corresponding large cell



6. BE CREATIVE—Color in your newly enlarged picture. Put the name of your character/object somewhere on your drawing.

### Questions:

Answer these questions on the back of your project or on a separate piece of paper

1. What is the ratio of the original image to your drawing? (Show Calculations)
2. What is the ratio of the area of the original image to the area of your drawing? (Show Calculations) How does this answer compare to your answer from question # 1?
3. In a brief paragraph (5 to 8 sentences), describe what you did in the activity and how you know your drawing is similar to the original image.

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_ BLOCK: \_\_\_\_\_

### THE FLINTSTONES



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