

Mural Maths

An activity of "Mural, Mural, on the Wall".

Read the article "Mural, mural, on the wall" (pages 16-17, *What's Up* March 2024).

Scale refers to the size of something compared to something else. For instance, when we look at a world map, we see a scaled down representation of the real world. The map's key might tell you that 1cm on the map equals 100km in the real world.

Proportion is about the relationship of parts within a whole, ensuring balance and harmony. For instance, when we look at a car's design, we might see that the body, wheels, doors, and other parts are proportioned to fit neatly and functionally. You won't have a large car with very tiny wheels or a tiny car with enormous seats.

1. Walk around your school or classroom and find things that show scale and proportion. You can also recall examples from your home. Describe one item that illustrates scaling and one item that you have something to say about its proportion.

| My comment about scale | My comment about proportion |
|--|---|
| <p><i>Example: a miniature model of our school</i></p> <p><i>Comment: I was impressed by how detailed and intricate the model is. It is scaled to be exactly like my school.</i></p> | <p><i>Example: a white disposable soup spoon</i></p> <p><i>Comment: I don't like the proportion of this spoon. If only the scooping part were deeper.</i></p> |
| <p><i>My item:</i></p> <p><i>My comment about its scale:</i></p> | <p><i>My item:</i></p> <p><i>My comments about proportion:</i></p> |
| <p>Both scale and proportion are used in creating murals.</p> | |

2. Watch this video to see how a street artist uses four techniques to create big murals from small designs.

4 Methods on How to Scale up your Art for Murals and Street Art

➤ <https://youtu.be/FzsNxjiTDWk?si=4tErjihGyRd9Zjtj>
(I am Detour, May 26 2022)

3. With a partner, brainstorm and sketch a small design in the space on the right. →

4. Use the Grid System to scale up your design.

Step 1: Draw a grid

Using a ruler and pencil, draw a grid over your sketch on the previous page. Make sure each square in the grid is the same size (e.g. 1cm x 1cm).

Step 2: Draw a larger grid

For instance, if you want to make your art 3 times bigger, then draw your new grid 3cm x 3cm. Make sure it has the same number of squares as your original grid, just bigger. You may use the space below or a fresh sheet of paper for your larger grid.

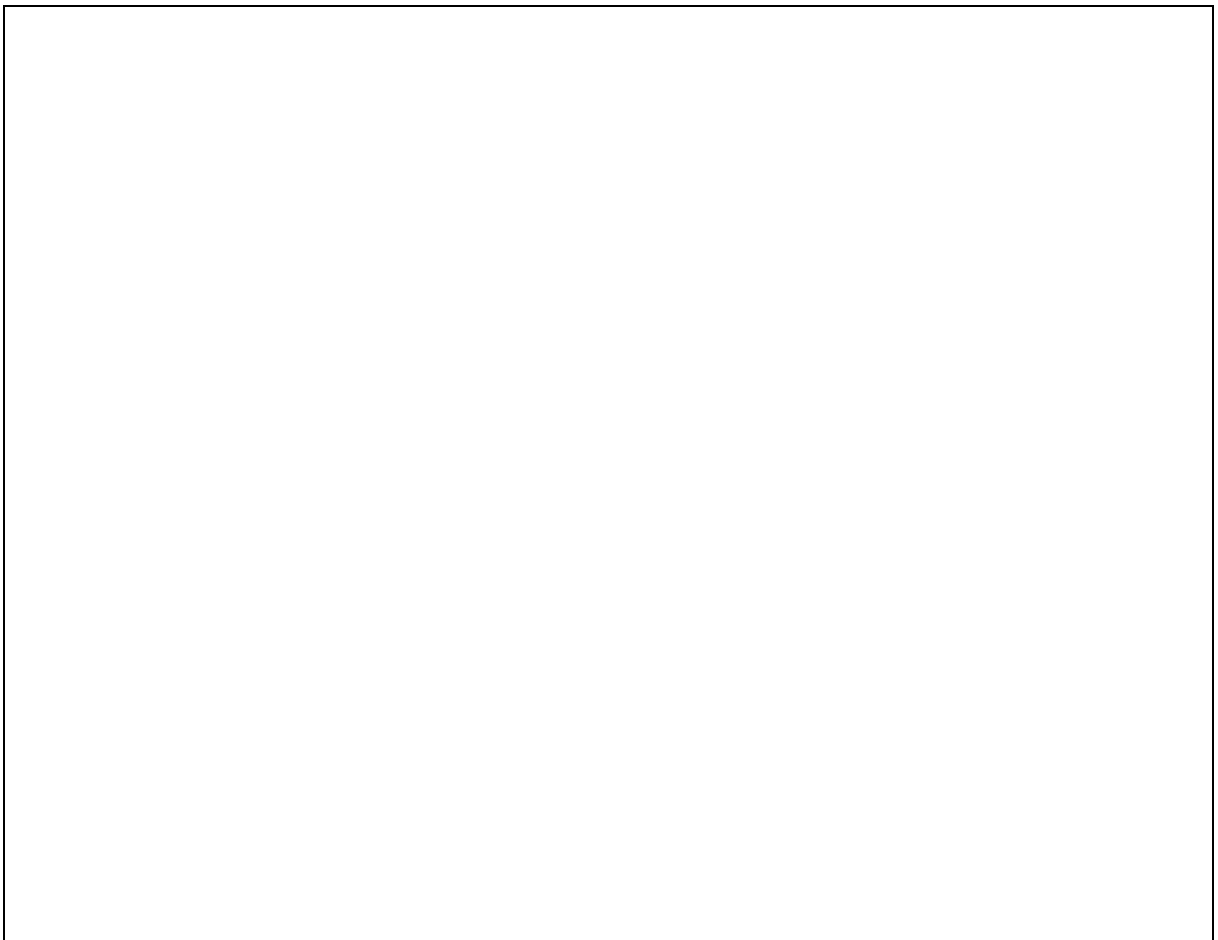
Step 3: Transfer your design square by square

Notice what part of your design is in the first square. In the corresponding large square, draw what you see from the small square. Repeat the process for each square in the grid.

Step 4: Add details and colours

Once you have transferred the entire design using the grid, you can add colour and more details since you are working larger now.

For your scaled up design:



5. Share your work, along with these reflections, with the class:

- What was the most challenging part of using the Grid System? How did you overcome it?
- Were there any parts of your design that were harder to scale up?
- How does your finished piece compare with your initial design?