

Scale Drawing

ART

Scale Drawing and Art

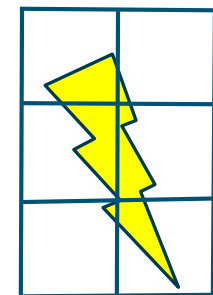
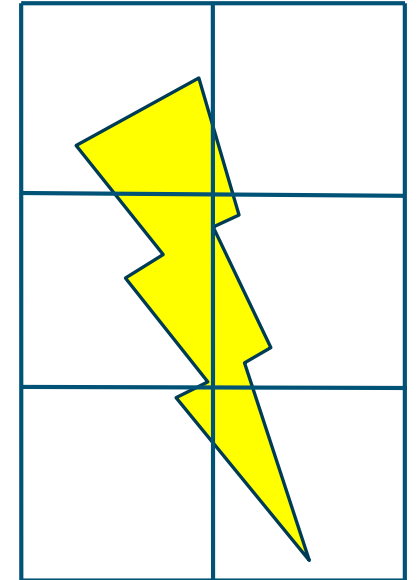
Before we used a straight edge and compass to scale a shape. This time we are going to use different size graph paper. To the right is a lightning bolt.

First, we overlay 1 inch graph paper.

Second, we decide on the scale. Let's scale the lightning bolt to one-half its size. (scale factor = $\frac{1}{2}$). We will use $\frac{1}{2}$ inch graph paper for the new figure.

Third, focus on each cell and recreate each new figure.

We have a new lightning bolt that is similar to the original, where each dimension is $\frac{1}{2}$ the size and the new area is 25% of the original.

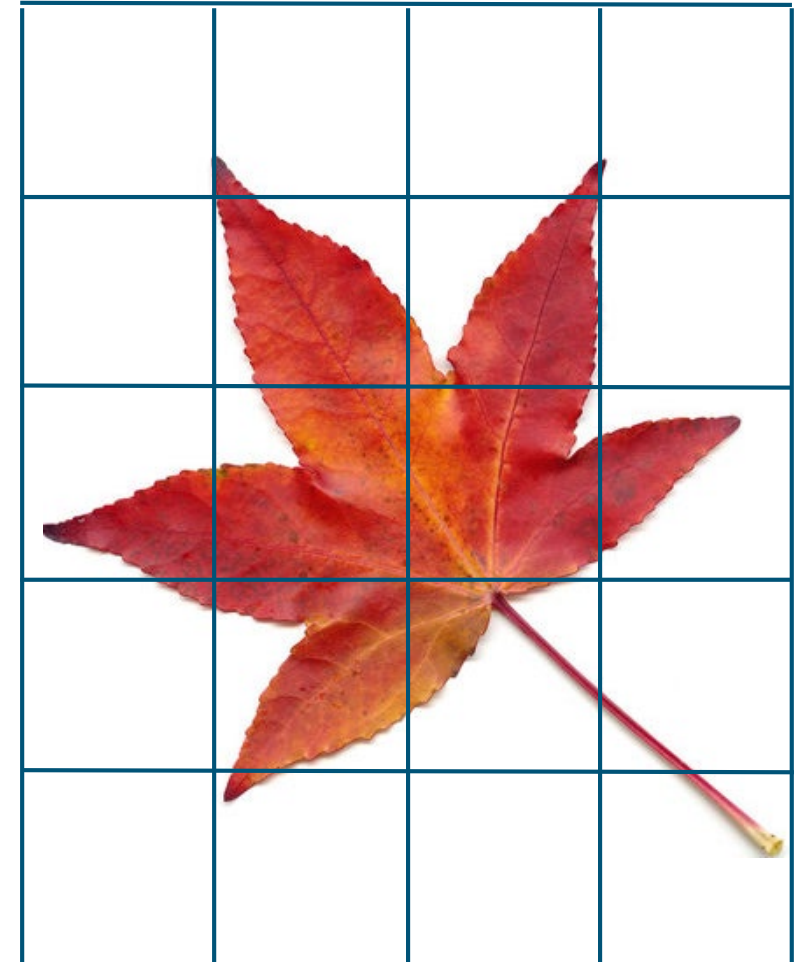


Scale Drawing and Art: Creating Scaled Images

Many times in art, a sculptor or artist must enlarge or reduce something. To the right is a picture of a leaf. It is actual size.

1. Create the reduced figure using $\frac{1}{2}$ inch graph paper.
2. What is the scale factor?
3. What is the percent enlargement/reduction?
4. Write sentences describing the changes in dimensions and area.

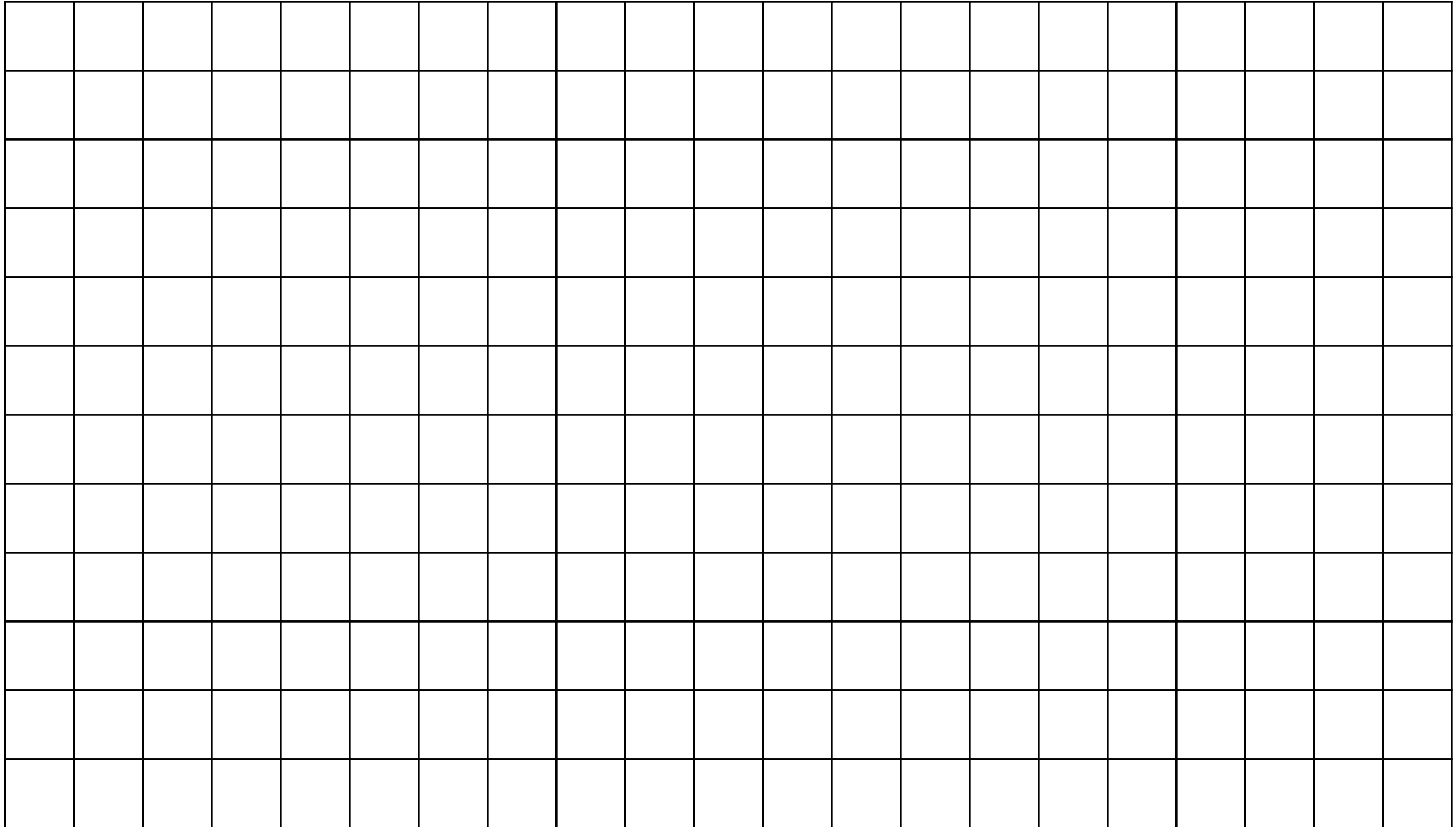
Note: students can use the lightning bolt example if needed.



Extension ideas:

1. Draw a figure on the 1 inch graph paper and then recreate the figure outside. Create a larger grid on the sidewalk with painters tape and then draw the figure with chalk.
2. If you have a coloring book and a ruler at home, draw a grid over one of the pictures and then try to recreate a larger or smaller version of the picture.
3. Find a map with a scale. Use the scale to draw a grid on the map. Choose part of the map to recreate a larger or smaller version with different sized graph paper.

Template 1.1 – $\frac{1}{2}$ inch graph paper



Template 1.2 – 1 inch graph paper

