Demonstrating Transformations with Stop Motion in Google Slides

Math TEKS:

The student is expected to:

10(A) generalize the properties of orientation and congruence of rotations, reflections, translations, and dilations of two-dimensional shapes on a coordinate plane;

10(B) differentiate between transformations that preserve congruence and those that do not;

10(C) explain the effect of translations, reflections over the x- or y-axis, and rotations limited to 90°, 180°, 270°, and 360° as applied to two-dimensional shapes on a coordinate plane using an algebraic representation;

Procedure:

1. Make copy of template with Coordinate Grid
2. Add text box in upper left corner with name of transformation. You may want to fill the box with a color so that you don't see the coordinate grid lines (white works).
3. Insert a shape into the first quadrant (rectangles, squares, and triangles work best)
4. Label vertices using text boxes, if desired.
5. Duplicate Slide (right click on slide (on left side) and select duplicate)
6. Determine location of shape when transformed (rotated, reflected, translated, or dilated)
7. Duplicate labels of vertices and update them to new coordinates.
8. Duplicate shape, transform it, and put in correct location. You can change the color if desired.
9. Delete original shape and vertices.
10. Repeat Steps 5-9 for your remaining transformations.
11. Publish Google Slides Presentation (see gif below for instructions)
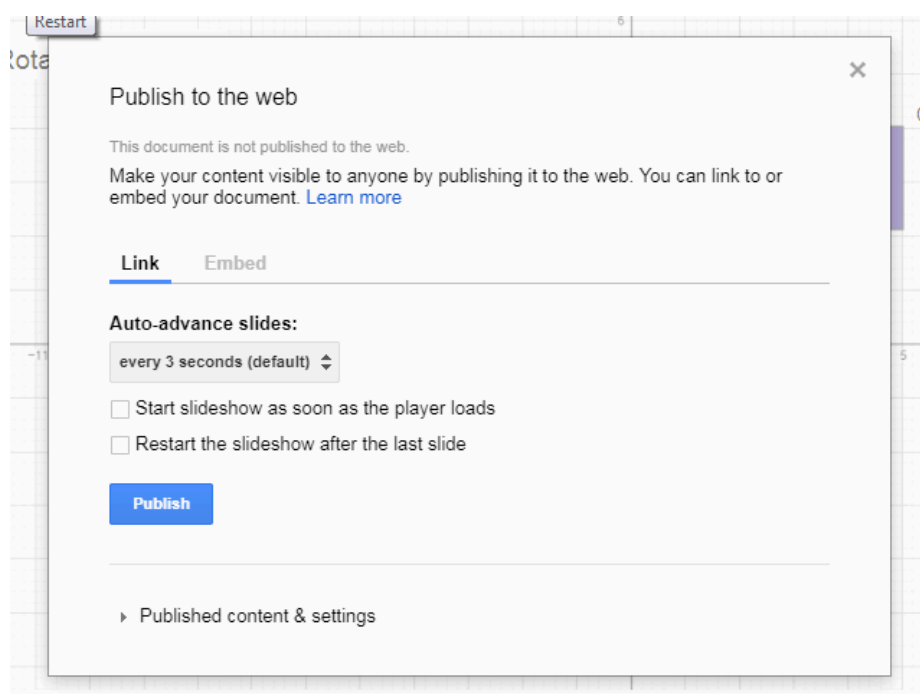
Rotations Instructions (if you need something more specific):

1. Make copy of template.
2. Add text box in upper left corner with name of transformation. You may want to fill the box with a color so that you don't see the coordinate grid lines (white works).
3. Insert a shape into the first quadrant (rectangles, squares, and triangles work best)
4. Label vertices using text boxes, if desired.
5. Duplicate Slide (right click on slide (on left side) and select duplicate)
6. Determine location of shape when rotated 90°.
7. Duplicate labels of vertices and update them to new coordinates.
8. Duplicate shape, rotate it, and put in correct location. You can change the color if desired.
9. Repeat Steps 5-8 for the next two rotations (180° and 270°)
10. Publish Google Slides Presentation (see gif above for instructions)

** Another option is to create all four rotations on the first slide. Then duplicate the slide many times and delete what you don't need.**

Links to Google Slides (used to create gif)
[Reflections Slides](#)
[Rotations Slides](#)