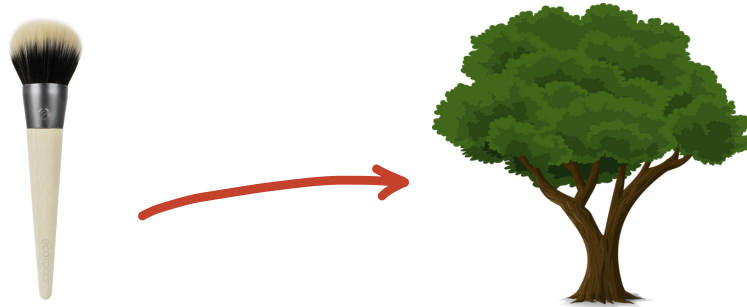# MATH AND ART
FAMILY LEARNING ACTIVITY: 9TH – 12TH GRADE

GOAL: Explore form through transformational drawing.

MATERIALS:
- White paper (2-3 sheets)
- Pencil
- Colored pencils

STEPS:

1. Start by brainstorming animate and inanimate objects that are somewhat similar in shape and form. You will be using one of each to make a transformation between the two.


2. Once you have one animate and one inanimate object, draw one of them on the left side of your paper and the other on the right side. This is just a sketch, not your final artwork. It's okay if it isn't perfect.

3. Sketch out the transformational steps between the two objects. You should have between 3 and 4 transformational stages for a total of 5 to 6 objects including the starting and finishing images. Focus on simple shapes and then add distinguishing details.

Sketch
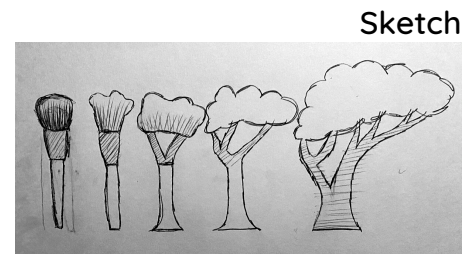
WATCH AN EXPERT:

Watch this artist use tracing to help map out their transformation steps!

MATH AND ART

HOW CAN WE USE MATH TO ENHANCE OUR ART?

Finished artwork

4. Once you have a plan for your transformation, start your final artwork. Draw a total of 5 to 6 objects tracking the process of transformation on a new sheet of paper.

5. Add any color or shading techniques to differentiate your beginning and ending objects.

DISCUSSION:

- How did you begin to think about the process of your transformation?
- What is the visual essential element in your piece that connects your two objects?
- How was math used to create your piece? (For example: using a ruler to measure, geometrically resizing or flipping your object, etc.)
- How can transformation be used in math?
- Have you used math in your artwork in the past? How so?

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FUN FACT!

Form is just one of seven different elements of art! The elements of art work together with the principles of design to create artwork with strong design and composition.

FOR MORE DETAILED INSTRUCTIONS, INFORMATION, AND IDEAS, VISIT:

Learn more about mathematical transformations here:
https://www.mathsisfun.com/geometry/transformations.html