

## Objective

By the end of this lesson, Maisie will understand how to apply mathematical concepts such as proportions, symmetry, and geometry in her digital art, specifically in creating manga and anime characters. She will also learn how these concepts can enhance her artistic skills and improve her artwork.

## Materials and Prep

- Digital drawing tablet or computer with drawing software
- Basic knowledge of digital art tools (brushes, layers, etc.)
- Access to examples of manga and anime art for reference
- Calculator (optional for practice with proportions)

## Activities

- **Proportion Practice:**

Maisie will select a few manga or anime characters and analyze their proportions. She will measure the height of the head compared to the body using a digital ruler or software tools. This will help her understand how artists create characters that are visually appealing.

- **Symmetry Challenge:**

Maisie will create a symmetrical character design using basic shapes. She will draw one half of a character and then duplicate and flip it to create the other half, emphasizing the importance of symmetry in character design.

- **Geometric Shapes in Art:**

Maisie will explore how geometric shapes can be used to create complex forms. She will start by sketching simple shapes (circles, squares, triangles) and then combine them to form a character, discussing how these shapes can be manipulated for artistic effect.

## Talking Points

- "Did you know that many anime characters are drawn using a specific head-to-body ratio? For example, a common ratio is 1:8, meaning the body is eight times the height of the head!"
- "Symmetry is not just about being even; it creates balance in your artwork. Think about how a character looks more appealing when both sides match!"
- "Geometric shapes are the building blocks of art. By starting with basic shapes, you can create complex characters. What shapes do you see in your favorite characters?"
- "Mathematics and art go hand in hand. Understanding proportions can help you create characters that feel real and relatable. How do you think this will change your art?"
- "Don't be afraid to experiment with different proportions and shapes. The beauty of digital art is that you can always undo and try again!"