



## Transformations in Geometry

### Today's Standard

HSG.CO.A4 - Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.

### Real-World Applications for this Standard

Designing computer graphics and animations; Engineering and architectural blueprints; Robotics and automated systems; Sports strategies and movements; Symmetry in art and nature

### Today I Learned

Today, we learned about how shapes can move and change in space. We talked about three ways: sliding, turning, and flipping. These are called translations, rotations, and reflections.

### Common Stumbling Blocks

Sometimes, kids think that a shape changes direction when it slides, but it doesn't. Another tricky part is mixing up turning and flipping. Turning spins a shape around, and flipping makes a mirror image.

### Quiz Me

- What is it called when a shape slides?
- How does a shape move when it turns?
- What happens when a shape flips?
- Can a shape change direction when it slides?
- What do you see in a mirror?

### Help Me

When we talk about shapes moving, we can think of real-life examples like sliding a book, spinning a top, or looking in a mirror. These help us understand how shapes can move and change.