

## Objective

By the end of this lesson, the student will understand the basic principles of creating a stable structure using simple concepts. They will learn how different shapes and balance can help make a strong and sturdy structure.

## Materials and Prep

- Paper
- Scissors
- Tape or glue
- Pencils or markers
- Small objects (like toys or blocks) for testing stability

Before the lesson, make sure the student understands basic shapes like squares, triangles, and rectangles. Explain that these shapes can be used to build things.

## Activities

- **Shape Exploration:**

Start by drawing different shapes on paper. Ask the student to identify each shape and discuss how they can be used in building. For example, "What shape do you think is the strongest?"

- **Build a Tower:**

Using paper, scissors, and tape, have the student create a tower. Encourage them to use different shapes and see which ones make the tower taller and more stable. Ask, "Can we make it even taller without it falling?"

- **Stability Challenge:**

Once the tower is built, test its stability by gently pushing it or placing small objects on top. Discuss what happens and how they can improve it. You can say, "What can we change to make it stronger?"

- **Design a Bridge:**

Challenge the student to create a bridge using the same materials. Discuss how bridges need to be strong enough to hold weight. Ask, "What shapes will help our bridge hold things?"

## Talking Points

- "What shapes do you see around us? Can we use them to build something?"
- "Why do you think triangles are strong? Let's try using them!"
- "What happens if we make our tower wider? Does it help?"
- "How can we make our bridge hold more weight? Let's test it!"
- "What do you think is the most important part of our structure?"
- "Can you think of a real building or bridge? What shape do you see in it?"