

## What Makes Structures Stand Up?

*Application of Architectural Concepts*

### Presenting the Activity:

Suggested dialogue...

*"You have had some experiences with using your bodies to actually feel the loads and tensions that exist within a building. When it is very quiet in your house, haven't you sometimes heard sounds like squeaks, grinds or little thuds? Those sounds are the building feeling the tensions and loads. Buildings can have creaky joints the same as people do!"*

*"Remember how a building feels as you make the structural forms we are going to make today. The forms will be models of structural parts of buildings. When you have several models, you can think about how you might put them together in a building or perhaps a city."*

*"What have you learned are the most basic geometric forms in architecture? Right—the circle, the square and the triangle."*

#### Circle

*"Take one of the strips and bend it into a circle with the ends overlapping about 1/2 inch. Tape or glue the ends together. "*

#### Column

*"With one of the square pieces, bend it into a circle and overlap the edges 1/2 inch. Tape or glue the edges together. Stand it on end, and you have a column."*

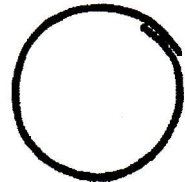
*"These are the easy ones. The next ones will be a little harder, and you will have to listen to the instructions very carefully."*

#### Square

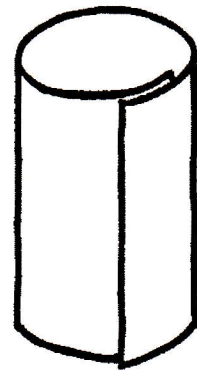
*"Take another strip. This time we will fold it into a square. First, fold one end over 1/2 inch."*

*"Hold that half-inch fold down, and fold the remaining strip in half. Now fold it in half again."*

*"Open the strip. You will need to reverse the fold at the end—that means to fold it back the opposite way from the way it is. Form the strip into a square, overlapping the half-inch fold over the other end of the strip. Tape or glue them together. "*



CIRCLE



CYLINDRICAL  
POST-COLUMN-TOWER