



GEOMETRIC SHAPES IN ARCHITECTURE

Goal: Students will understand how geometry plays an important role in the design of all architectural structures.

Objectives: Students will...

- Understand the basic shapes of geometry and how architects transform these shapes from two-dimensional forms to three-dimensional forms
- Use these basic shapes to design their own models of architectural structures

Time Required: 1 day

Standards Met: M3, M8, M9, M10

Materials (For class of 30 students):

- Class set of *Fun with Architecture* (ISBN 0-670-84684-8) rubber stamps
- Sheets of white (non-lined) paper
- Class set of Student Response Sheets

Procedure:

Part 1

- Discuss with the students the basic shapes used in geometry.
- Explain to them how two-dimensional forms are transformed into three-dimensional forms.
- Have them fill in Table 1 on their Student Response Sheets.

Part 2

- Discuss with your students how geometrical forms are used in architecture. Give them several examples and then have them fill in Table 2 of their Student Response Sheet.

Part 3

- Divide the class up into groups of two.
- Have each group pick up a *Fun with Architecture* rubber stamp kit.
- Using the instruction booklet included (and examples) have the students use the basic geometric shapes provided to “stamp out” at least two architectural structures (bridges, houses, etc.).

- When the class ends, make sure that all the stamps are returned to the correct spot in the kits and the kits are returned to the instructor.



Geometric Shapes in Architecture – Student Response Sheet

Part 1 Table 1

2 dimensional shape's name	Illustration of 2 dimensional shape	3 dimensional shape's name	Illustration of 3 dimensional shape

Part 3
Architectural Structures—