

SUPER STRUCTURES

*Act like junior architects and engineers! Test out shapes for strength. See if a paper column can withstand the Column Collapser apparatus! Construct a structure from scratch with the **Bridge Basics** kit.*

SUMMARY:

Super Structures lets children act like junior architects and engineers! Children push and pull their partners' hands to learn about compression and tension, and strengthen a sponge beam with knitting needle rods. A tension test lets children determine the toughest textile. They test out shapes for strength, and then watch to see if a paper column can withstand the Column Collapser! They build a Roman arch block bridge too! Construction continues at home with the Bridge Basics Take-Home.

EDUCATIONAL VALUE:

Super Structures introduces children to the fascinating science of architecture and engineering. They learn about structures, the forces behind them, and shapes and materials that strengthen them. Images of real-life structures reinforce these concepts. Children take home a bridge-building kit. They use the included components to strengthen a basic bridge structure.

TAKE-HOME MESSAGE:

- 1 Structures hold up, span, or enclose things.
- 2 Structures must stand up against push and pull forces.
- 3 Strong shapes used in structures are triangles, cylinders, and arches.

TAKE-HOME PRODUCT:

Bridge Basics

NORTH CAROLINA ESSENTIAL STANDARDS:

- K.P.2 Understand how objects are described based on their physical properties and how they are used.
- 1.P.1.3 Predict the effect of a given force on the motion of an object, including balanced forces.

