611-2185 (60-025) Geometry Blocks

Introduction: geometry is an interesting concept. For millennia, the idea of describing space by means of shapes has been commonplace. One familiar example is Euclidean geometry. Instead of trying to depict real objects, this system uses idealized versions of shapes. These shapes obey certain laws, like angles and proportions, and are completely consistent with themselves. These formalized pieces of the universe are never found in a natural state. Instead, they serve to illustrate perfect versions of the shapes found in nature. By studying these ideal shapes, it is possible to gain a greater understanding of the imperfect shapes found in nature.

In the twentieth century, a new idea developed: fractal geometry, which was based on the premise of fractional dimensions. These abstract shapes depict the natural world far better than Euclidian geometry. However, they are next to impossible to assemble into tangible objects, given their extraordinary complexity. For example, simple mathematical formulas can yield fractal shapes that extend into smaller and smaller scales infinitely, without repeating.

Description: our set contains: three cones, two of which nest together, a rectangular prism, a square prism, a cube, a sphere, and two nesting cylinders. These shapes are designed to follow the laws of ideal shapes as closely as possible.

Warranty and Parts:
We replace all defective or missing parts free of charge. Additional replacement parts may be ordered toll-free. We accept MasterCard, Visa, checks and School P.O.s. All products warranted to be free from defect for 90 days. Does not apply to accident, misuse or normal wear and tear. Intended for children 13 years of age and up. This item is not a toy. It may contain small parts that can be choking hazards. Adult supervision is required.

Other Science First Items:

611-0350 Roman Arch Set: Build a working model of the Roman Arch and learn why this structure is so strong. This clever and attractive puzzle is also an intriguing lab in force and geometry. Try building it without the template first - it's not as easy as it looks! Build it on a flat surface and then carefully raise it up. The kit includes: 23 pine blocks in 6 unique shapes; predrilled buttress in 3 sections; hardware; instructions with historical background and full-scale template. Approximate block size 3 cm.

611-0355 Catenary Arch Set: Here's a great hands-on lab for physical science, math or even art. Our streamlined set of blocks helps you understand the unique structural strength of an arch of this type. While the mathematical workup is complex, the basic shape needn't be. Kit includes: 13 pine blocks, all about 2" long and 1/2-1" thick; instructions with full-size template.

611-2150 Density Experiment Kit: Our density lab kit contains 3 different density sample cylinders, an overflow can, a catchbucket, a spring scale, and instructions.

611-2125 What is Density? Kit: Density (a term often misused and misunderstood) - describes how closely packed the particles of a substance are and is usually expressed in terms of comparison. In this kit, comparisons are made to water, because the results are obvious: the less dense substance will rise to the top or float. By modeling gases, liquids, and solids (dough figures progressively more compact) and floating them in water, your class will see that it is volume, not weight, that determines the behavior of a substance.