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Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
1983 Volume I: Elements of Architecture

Geometric Systems in Architecture

Guide for Curriculum Unit 83.01.09
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The unit Geometric Systems in Architecture is to be used as part of a regular seventh and eighth grade geometry unit. The information may cover a two to three week period following the regular geometry unit in the spring. Students should already have been introduced to area, volume, and figure identification.

Information contained in the unit deals with students ability to learn by manipulating objects. Lessons include deriving formulas for volume by building rectangular prisms, identifying geometric solids by constructing cubes, tetrahedrons, and octahedrons and identifying geometric patterns found in ceiling and wall tiles. Additional lessons deal with geometric systems manifested in the crystal structure of minerals. Students will be introduced to three dimensional figures in nature, in the classroom, and in architecture.

It is expected that students will complete the unit with a better understanding of three dimensional space and an awareness of patterns that exist in nature, mathematics, and architecture.

(Recommended for 7th and 8th grade Mathematics)

Key Words

Architecture Geometry Mathematics

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