



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2006 Volume IV: Math in the Beauty and Realization of Architecture

Aqueduct Architecture: Moving Water to the Masses in Ancient Rome

Guide for Curriculum Unit 06.04.04
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This unit seeks to raise awareness of basic, yet, historic principles of architecture as they apply to the provision of water to an urban center. As is fitting with ninth grade world civilizations curriculum, the architecture of a Roman aqueduct is the focal point of this study. Studying aqueduct architecture encourages proficiency in quantitative skills, language arts, and organizational skills. Quantitative activities such as measuring, using scale, and calculating volume facilitate developing math skills. Critical reading of primary and secondary sources, document based questions, discussion and writing descriptively and persuasively teach and/or reinforce language arts skills. Readings also address the levels of organization or government necessary to design, build, and maintain an aqueduct. Statistical information from the United Nations' 2003 campaign on the International Year of Freshwater is included to highlight the major challenges to providing clean water to urban centers which account for almost half the world's population. Activities for having students explore how their community provides water are included. In short, the unit can be used as an interdisciplinary unit with the support of a math teacher or as a component of the study of classical civilizations. Reference to local, state, and national standards is included.

Water is an essential resource for health and survival. We are as dependent on having clean water as the Romans were 2000 years ago. Growing demands on our water supply challenge us to be conscious of how we consume water and ensure a healthy standard of water quality. Because we face some of the same challenges to providing clean water to our cities as did the Romans, having students make connections to how we provide clean water to our urban centers makes sense.

(Recommended for World Civilizations, grades 9-12.)

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