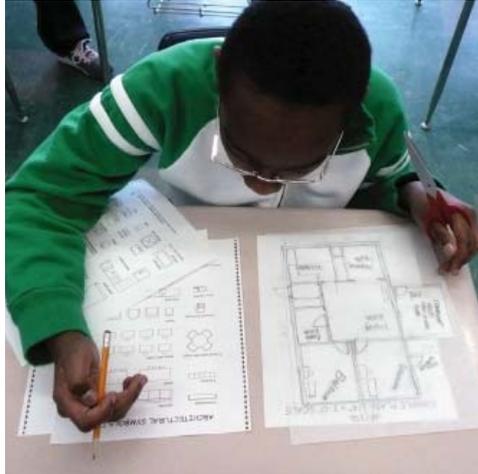




# Archi-Math

## Hands-on Math and Visual Arts Projects for Grades 5 - 8



**Archi-Math connects learning in Art and Math through hands-on architecture and design projects.**

In these projects students in grades 5-8 put skills and knowledge in Mathematics, the Visual Arts, Science and Technology/Engineering, and English Language Arts to practical use.

The activities focus on geometry and measurement concepts aligned to the MA Curriculum Frameworks and assessed on the MA Comprehensive Assessment System [MCAS] tests. Included in the curriculum are sample MCAS questions directly related to each activity.

If you give them the opportunity, your students will readily use both Math and Art skills as they design - this is how real designers work. For example:

- Students use their knowledge of 2d and 3d polygons to design arches, columns and trusses and then build structural models.
- Students use measurement, scale and grids to draw floor plans; and then calculate the area of their designs.
- Students use similar triangles and their understanding of slope to draw 2d sketches of roofs and then they build model roofs.



## Curriculum Kit

In this multi-session classroom curriculum students work on Archi-Math projects in Art and Math classes. Each activity can stand alone; or several activities can be done in sequence, creating a more connected design project. Students develop their ideas by writing and drawing in sketchbooks in both classes; they problem-solve, practice new skills and move forward in much the same sequence that a designer does when following the steps of the design process.

## Slide Kit

A slide set and accompanying exercises developed to be completed in an hour; this kit shows grade appropriate math concepts in real-life architectural examples.

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