



FAQ - NUTS AND BOLTS

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How are you different than other programs that build a house?

We build with mainstream 9th and 10th grade geometry students. Many other programs only allow select 11th and 12th graders. We teach all the rigorous geometry while some programs only teach the trade math.

Where do you build the house, and how long does it take?

We build the house on school grounds using a combination of traditional "stick built" techniques and manufactured home industry techniques. We typically begin construction in late October and finish prior to the end of the school year in May.

What does a student's schedule look like who is enrolled in Geometry in Construction?

Students at our high school are on an alternating block schedule. They would normally be in a geometry class for 90 minutes every other day and in a regular construction class for 90 minutes every other day. Our students spend two 90 minute blocks with us every other day (no extra time above the regular classes).

How many credits does a student earn over the course of a year in Geometry in

Construction?

The only thing that is different from a regular Geometry or regular Construction class is the delivery method of materials. We still cover all of the same objectives and standards for both classes. Upon completion each student receives one full credit of geometry and one full credit of construction for their transcript. Both of these credits count toward the graduation requirement of three full math credits and one half credit of applied arts.

How many students are involved, and how long do they work each day?

We have 170 students involved in the building process. We have about 75% of all geometry sections of the high school involved in the class. The students work about 1.5 hours of the 3-hour class on the house.

Is the math teacher involved in construction?

Yes. However, he/she only works on items on the house that he/she is comfortable with. Many times the construction teacher will teach the math teacher a short lesson on some aspect of construction during the common plan.

Is the construction teacher in the geometry class?

Yes. However, he/she is not responsible for teaching the geometry. He/she provides assistance in homework checks, grading, attendance, and teaching geometry/construction openers

Building a house is expensive. How do you pay for it?

We wrote grants, used curriculum textbook money, and asked the district to fund the initial start-up of \$30,000. After the initial start-up, we no longer receive funding from the district. We sell the home at completion and the proceeds pay for the following year's building materials and program cost.

How do you meet the "highly qualified" component of NCLB?

The math teacher instructs the geometry portion, and the construction teacher teaches the construction class.

What is your class size?

We have 20 students in geometry and 20 in construction, for a total of 40 students between two teachers each period.

How do you keep all 40 students working on the house?

We use employability cards, which are used to assign tasks and grade students based upon task completion, craftsmanship, teamwork, and clean-up. The teachers divide the responsibilities for tracking employability cards.

What math textbook do you use?

We use a 200-page problem bank that is split into 8 units that was written by Moore.

What is the safety procedure?

We conduct "just in time safety." We train students just before the tool/activity is used.

Is the geometry rigorous?

Yes. Look at our data for state test scores. Students can continue on in the math sequence into Algebra 2, etc. We meet **all** the geometry standards.

How do you grade students?

In the math class, we have homework as normal, quizzes, and individual tests. The tests are about 50% application and 50% naked math. Every test has an extensive review of older material and of Algebra 1. On the construction side of the class, employability cards are used to grade students.

What are the student pre-requisites?

No construction experience is necessary. The pre-requisite for Geometry in Construction is the same as regular geometry; Algebra 1.

Do students build through all phases of the building?

Yes. Students are responsible for every aspect and every facet of the construction.

Where do you get your building plans?

We are required to have engineered plans. We cannot have our students draw them. We have a partnership with industry, and they provide the plans free to us. You would need to develop a partnership or purchase the plans out right.

What inspections are required of the house?

We are required to have inspections similar to those of any builder. We build to the IRC Code. For us in Colorado, we have the option of state inspections which allows us to build a home for anywhere in the state. You could have city or county inspections as applicable.

I know you build at school, but what do you build on?

We build on a trailer frame. However, building on cribs is a great option. When it comes time to move the house, a lowboy tractor trailer rig is used.

How many females are enrolled in Geometry in Construction?

In our first year we had 22%. Now, as of 2008-09, we have 42% enrolled. We anticipate the percent to increase to near 50% for the 2009-10 school year. This is an exceptional percent of females in a non-traditional career path.
