The Techne Society

How does a lawnmower work? When I was young I had no idea, so I asked my grandfather. He said, "Let's find out!" Two hours and dozens of bolts and screws later, the dismembered guts of a lawnmower lay before us, and I had learned about pistons, spark-plugs, gears, valves, motors, and blades. My grandfather taught me that what one man creates, another can understand, and that some things are best learned by doing.

The Greek poet Homer recognized three great virtues: *courage*, *cunning,* and *techne*. *Techne*, the oft–overlooked third Homeric virtue is the root of our word "technology" and means something like "craftsmanship" or "skill with tools". As with every virtue, *Techne* requires cultivation and practice. That practice is best done in community, where the learning and skill of each can aid the learning and skill of all.

There are two cultures of technology today. One culture is the culture of distraction and entertainment. The other, less common culture is the culture of creation. The Techne society will encourage its members to be a part of the culture of creation, not part of the culture of distraction.

What Will The Society Do?

For the fall semester, the society will explore different ways of making things. The three areas we'll look at are mechanics, electronics, and computer programming. For each area, we will practice using common tools and techniques:

September — Woodworking will be the starting point for our exploration. We'll practice with hand tools for working with wood: hammers, drills, saws, chisels, clamps, and rasps. We'll work through how to measure and communicate measurements in designs and schematics. Our woodworking exploration will culminate in a tower design and construction competition.

October — Autumn will see the society disassemble lawnmowers and create web pages that explain what lawnmowers are made of. We'll learn about metalworking and engines. We'll practice with hand tools for working with metal: wrenches, screwdrivers, shears, and pliers. As we disassemble the mowers, we'll chronicle our findings as a web page. We'll talk through how the web works and develop basic skills with HTML and CSS, the languages of internet browsers.

November and December — As the weather turns gray, the society will head inside to learn how to create electrical circuits. We'll practice with batteries, motors, transformers, wire cutters, strippers, bread boards, LED lights, and the soldering iron. As Christmas approaches, we'll start building robotic rovers. We'll add sensors to our repertoire of electronic tools. We'll learn Wiring, a programming language used to control the Arduino micro controller and use it to program our robots to compete in an obstacle race.

January — As the Roman god Janus looked both forwards and back at the same time, January will see the society looking back at all the skills and tools we've worked with and forward to the exhibition at the end of the year. The members will form small groups and choose a project that they will see through in the next three months.

February and March — We'll work on our projects! Each group will work with its adult mentor to design and build a project of their own choosing. It could be a nicely woodworked and stained box. It could be a necklace worked from copper wire, steel sheet, and glass. It could be a machine to help fold laundry. It could be an iPhone app. It could be a robot that chases cats (don't tell my wife, who would disapprove of chasing cats!).

April — As April draws to a close, the society will host an exhibition for the larger school community. The members will have an opportunity to show others their creations and to encourage folks to join them in creative community.

Who Should Join The Society?

The Techne society is open to all students in 8th through 12th grades. There are no pre-requisite skills or knowledge, but commitment and enthusiasm are vital.

The society is also a great opportunity for parents to contribute the the life of the school by working with individuals and groups as a mentor or by helping facilitate the meetings of the society. If you are interested in being a part of the society, do please contact Mr. Carey at billcarey@mac.com.

When Will the Society Meet?

The society will meet every Wednesday that the Ad Fontes Upper School is in session from 3:00 to 4:30. Most of the meetings will be Ad Fontes, but some will be at Mr. Carey's house, less than ten minutes from the school (when we need equipment that's too large or cumbersome to move).

In addition to the regular meetings of the society, there will be an exhibition of the members' creations in April. The exhibition will be open to the school community, and all are encouraged to attend. Should worthwhile opportunities arise, the society may organize a handful of optional field trips.

What Will Members Need To Provide?

There will be an $80 cost for the year to cover the tools we'll break, the materials we'll use, and the food we'll enjoy. Additionally, members must provide for themselves and bring to each meeting:

- A pair of safety glasses
- A straightedge or ruler
- A notebook ruled as graph paper
- An e-mail address (a parent's is fine)
- A laptop computer (almost any will do; we won't need these at every meeting)

If the cost or materials present a hardship, do please contact Mr. Carey and he will strive to work things out a way for you to participate in the society.

From time to time we will need many of a tool that I have few of. When this happens I will send out an e-mail to the society asking for volunteers to bring a particular tool. For example, we will occasionally want lots of tape measures. Hopefully some of the members will have their own!