



The World of Technology Education

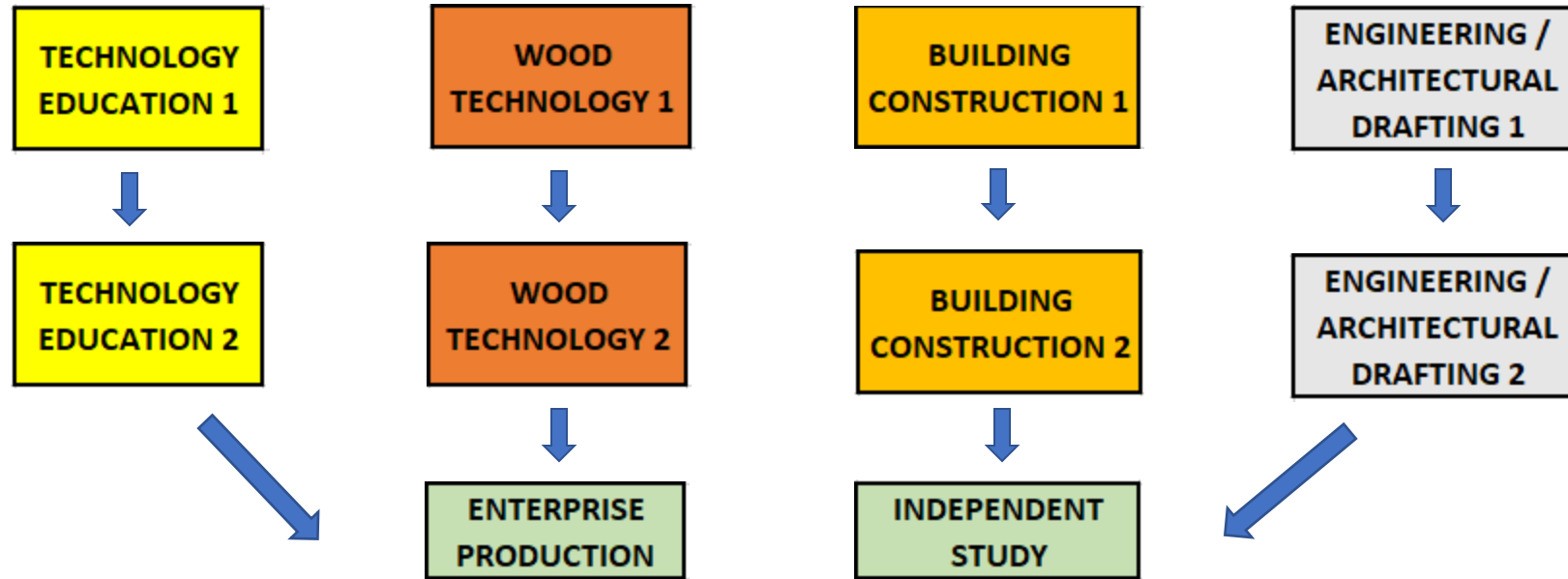


Derby High School

ALL COURSES ARE ½ YEAR CLASSES



# TECHNOLOGY EDUCATION CLASSES



**MORE THAN JUST A CLASSES ITS AN ADVENTURE**

**ALL COURSES ARE ACTIVITY-BASED COURSES AND WILL PROVIDE THE STUDENT EXPERIENCE IN THE APPLICATION OF TECHNOLOGY THROUGH A PROBLEM SOLVING APPROACH**



**TECHNOLOGY  
EDUCATION 1**

**Prerequisite: NONE**

This course is an exploration of the world of technology and how it relates to you and the world around you. It connects the middle school experience to high school and beyond by investigating the four areas of technology – construction, manufacturing, communications, and transportation.

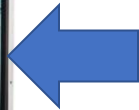
**Construction** – how things are build and why (model of building, home underground facility)

**Manufacturing** –create a product and make a factory that will create such a product (Green Project)

**Communications** – Discuss then and now, where will we be in the future (let your mind go)

**Transportation** – Discuss how technology has changed transportation and how we travel (Aviation, Trains, Space, Land, Sea above and below....More?)

**GRADE 9-12**

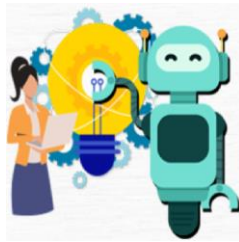


**COMMUNICATION PAST  
-PRESENT**



**EGG-O-NAUT PROJECT**





## TECHNOLOGY EDUCATION 2

Prerequisite: TECHNOLOGY EDUCATION 1  
GRADE 9-12

This course offers students an opportunity to increase their understanding of energy, power, manufacturing and transportation and how they continue to enhance our everyday lives. A continued emphasis will be placed on enhancing the student's knowledge in these areas as well as an understanding of quality methods and how to budget time, materials, and money. Students will examine and appraise industrial products and processes.

- Construction** – Continue with how things are build and why but now we go further, green building and energy efficient buildings and homes (Solar Power, Wind etc...)
- Manufacturing** – Discuss artificial intelligence and how it interfaces with manufacturing today, Students will use 3D Printers . Prosthetics
- Communications** – Discuss then and now, where will we be in the future (let your mind go create in theory a new device and what it will do and how it will help mankind)
- Transportation** – Discuss how technology has changed go into propulsion systems internal and external combustion systems



**Prototype to Production**





## WOOD TECHNOLOGY 1

Prerequisite: NONE

GRADE 9-12

Woodworking is a course designed to introduce students to general woodworking practices. Students will expand their knowledge and experience through various projects, lessons and vocabulary. Students will be expected to learn about and safely use hand tools, power tools, and woodworking machinery. The projects are designed to give students as much experience as possible by using many different machines and tools. The projects will also cover many aspects of the building and woodworking industries.





## WOOD TECHNOLOGY 2

**Prerequisite: Wood Technology I**  
**GRADE 9-12**

This course offers students an opportunity to increase their understanding of woodworking and is a segway for the introduction to the basic building materials, components, methods, and sequences in residential construction. It is designed to give students basic, entry level skills in construction and related trades along with an overview of career opportunities available. Emphasis is placed on safety and the proper use of both hand and power tools. This course provides students the experiences of participating in the building of a house along with various woodworking skill building projects. They will learn to be responsible for their own work, for tools, equipment. and for the facility- traits necessary to successful future employment





## BUILDING CONSTRUCTION 1

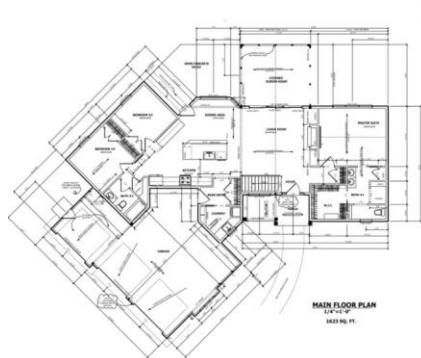
**Prerequisite: Wood Technology I or Wood  
Technology II with Teacher  
Recommendation**

**GRADE 10-12**

Building Construction I is a course designed to introduce students to general building techniques and practices. Students will expand their knowledge and experience through various projects, lessons and vocabulary. Students will be expected to learn about and safely utilize hand tools, power tools and woodworking machinery. The projects are designed to give students as much experience as possible by using many different machines and tools. The projects will also cover as many aspects of building and industries as is possible in an entry level course. Instructional units will include the design, planning, and documentation, manufacturing, and finishing processes. Project work will be the vehicle of instruction



1. Safety on a job site and in the shop
2. Survey the school ground
3. Read a print
4. Create a small wall to learn the building concepts
5. Create a 4' small wall with electrical, sheet rock flooring, trim, window and door.







## BUILDING CONSTRUCTION 2

**Prerequisite: Building Construction I or  
with Teacher Recommendation**

**GRADE 10-12**

Building Construction II is a course designed to introduce students to general building techniques and practices. Students will expand their knowledge and experience through various projects, lessons and vocabulary. This course will provide students with marketable skills in the construction industry. Emphasis will be placed on quality of workmanship and effective use of time and resources. Students will be introduced to house construction, sheds, decks, and surveying construction sites. The culmination of this sequence of course work will serve as an adequate prerequisite for entry into apprentice training in this field. Students will build personal, school related, or community needed projects for this course





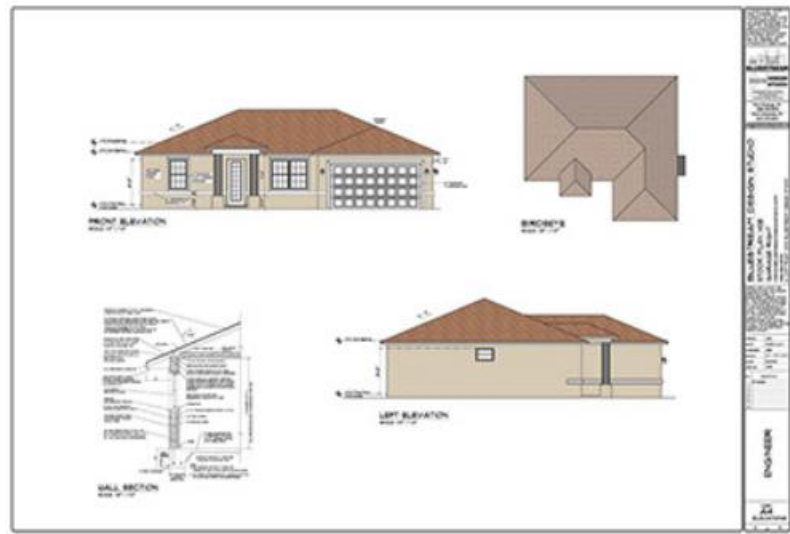


**ENGINEERING /  
ARCHITECTURAL  
DRAFTING 1**

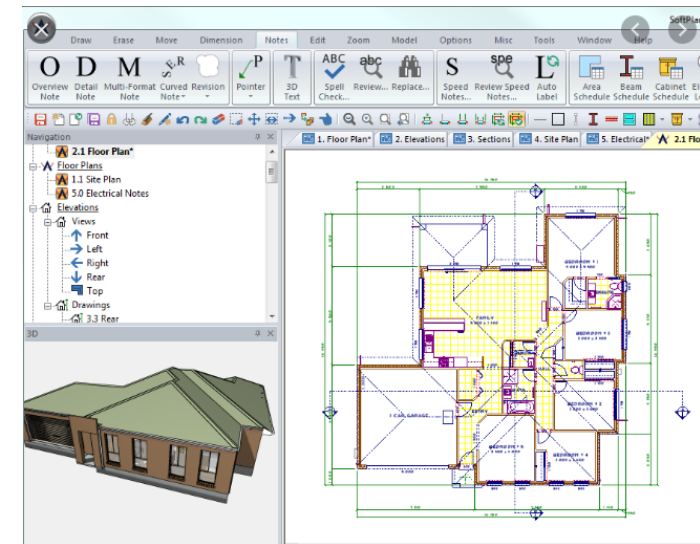
**Prerequisite: NONE  
GRADE 10-12**

This introductory course will begin with the theory of orthographic and isometric projections. Daily work assignments will be used to reinforce the basics of architectural drawings. A continued emphasis placed on the development of exactness and proficiency in the performance. This course will include sectional views, machine threads and auxiliary views. The last quarter will be devoted to architectural drafting where students will make plans for a small house. This course will provide an increased development of marketable skills and in future potential job opportunities.

**Students will become very proficient in this course and will learn the basics and more about architectural design build and expenses.**



**They will learn plot plans, elevations, plans, site evaluation and become proficient in 3d modeling**





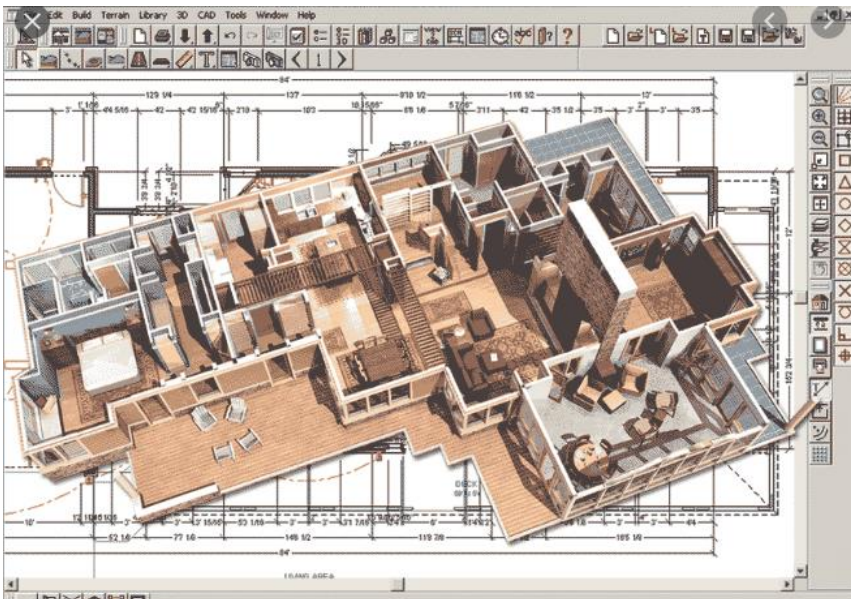
**ENGINEERING /  
ARCHITECTURAL  
DRAFTING 2**

**Prerequisite: Engineering / Architectural  
Drafting 1**

**GRADE 10-12**

This course is designed to fit the needs of juniors and seniors who will plan to follow an engineering curriculum in college. This course will give the student further experience in making more advanced drawings including complex sectional views, machine threads and fasteners. Again the last half of this class shall be devoted to further the experience in architectural drawings, elevations, pictorial rendering of the house, and structural detail drawings. Basic vocational and career opportunities will be discussed.

**IN Engineering Architectural Drafting-2 Students will continue to build on previous lessons from 1 and are now ready to enter in a statewide competition to strut their stuff.**



**Two years ago  
Derby students  
came in second  
in an  
architectural  
competition,  
they received a  
money reward.**





## ENTERPRISE PRODUCTION

**Prerequisite: Instructor's permission and at least one of the following - Engineering/Architectural Drafting I, Technology Education I, Wood Technology I**

This course shall be designed to introduce the student to the production (manufacturing/construction), transportation (energy), and communication systems used to organize and operate an entrepreneurial business endeavor. Teachers in the unified arts area shall guide a diverse group of students into an experience that would last for a lifetime. The company/students of the Big Red Productions will choose a product, market it, research it and produce it within one school year.



In recent years we have had a group of highly motivated students who designed and built **Adirondack Chairs** – established a production line, jigs and fixtures and stations for build. We also established quality control and engineering re-design – All profits went back to school program







**INDEPENDENT  
STUDY**

**Prerequisite: Teacher Recommendation**

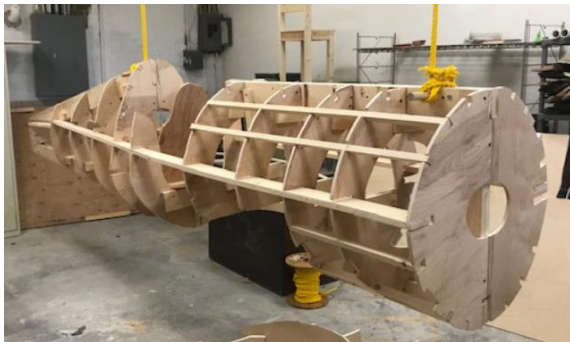
This program provides students with an opportunity to do a study in a field of interest not readily available in the regular curriculum. A student desiring such a program should consult the Technology Education Teacher and the Guidance office.



**F4 Corsair built during WW2**



**Create signs using our machines in Tech Ed and doing for others**





# Technology Education Association TSA



**COMMUNITY SERVICE / FIELD  
TRIPS / TOYS FOR THE CHILDREN  
AND WEATHERVANES FOR THE  
SENIOR CITIZENS**

