

Grade Eight – Manufacturing and Construction

This class will give students hands-on experiences in manufacturing and construction technologies. Students will get instructions to safely use hand tools, power tools, machines, and computers so they can solve technical problems. This course will give students an idea of what advanced technology classes are like as they prepare for their high school career.

	Technology Education Benchmarks
	The student will:
	Standard 1: Demonstrate competence in reading and gathering information of a technical nature.
8-1a.	Apply listening and reading skills to understand directions and follow procedures to use technologies correctly, safely, and wisely.
	Standard 2: Demonstrate competence in organizing and writing technical reports.
8-2a.	Collect data and write a technical report.
	Standard 4: Understand the interaction of science, technology, and society.
8-4a.	Explain how science and technology work together to help solve individual, environmental, and society problems.
	Standard 5: Know how to apply complex reasoning and design processes in a technological environment.
8-5a.	Use problem-solving skills in the planning and manufacturing of a product.
8-5b.	Plan and solve a technical problem.
	Standard 6: Understand the general nature and use of mathematics.
8-6a.	Use math skills to calculate cost estimates.
8-6b.	Use U.S. customary and metric measuring tools.
8-6c.	Use math formulas to calculate machine speeds.
	Standard 7: Understand the nature and use of communications technology in our society.
8-7a.	Demonstrate correct use of basic drafting tools.
8-7b.	Use the computer to access information.
8-7c.	Use the computer to generate communication with a blend of text and illustrations.
8-7d.	Explain the purpose of a working drawing.
8-7e.	Identify pictorial and multi view drawings.

Technology Education Benchmarks	
8-7f.	Describe why communication requires information to be encoded, transmitted, received, and decoded.
	Standard 8: Understand the nature and use of construction technology in our society.
8-8a.	Define that construction involves planning and producing a structure by combining resources to solve a need.
8-8b.	List the building systems in a home which include water, heat, and electrical.
8-8c.	Design an electrical floor plan and estimate the cost of the electrical supplies.
8-8d.	Identify the structural components of a wood frame building.
8-8e.	Construct a wood frame scale model using a plan.
8-8f.	Use hand and power tools in an effective and safe manner.
	Standard 9: Understand the nature and use of manufacturing technology in our society.
8-9a.	Define manufacturing as a production system, which works to satisfy our basic needs.
8-9b.	Demonstrate how to safely use hand and power tools to manufacture a product.
8-9c.	Custom build a product.
8-9d.	Mass-produce a product.
8-9e.	Explain the impacts of manufacturing on individuals and society.
	Standard 11: Demonstrate competence in life skills relating to a technological environment.
8-11a.	Describe occupations and impacts technology has on occupations.
8-11b.	Identify the importance of being literate in technology.
	Standard 12: Display competence in using employability skills.
8-12a.	Listen and follow directions.
8-12b.	Work in a group as a positive contributor.
8-12c.	Use appropriate social skills when working with adults or peers.