Middle School Construction Technologies Courses

Subject Code	Course Title	Curriculum Code/Hours		
		VT	V3	VM
Structural Systems Pathway (DD)				
178000	Construction Technology – Core and Sustainable Construction	120-280	60	30-60
178001	Carpentry and Masonry Technical Skills	120-280	60	30-60
178002	Mechanical, Electrical and Plumbing Systems	120-280	60	30-60
178019	Plan Reading	120-280	60	30-60
990364	Career Connections			30-60
Mechanical, Electrical, and Plumbing Pathway (DE)				
178000	Construction Technology – Core and Sustainable Construction	120-280	60	30-60
178001	Carpentry and Masonry Technical Skills	120-280	60	30-60
178002	Mechanical, Electrical and Plumbing Systems	120-280	60	30-60
178019	Plan Reading	120-280	60	30-60
990364	Career Connections			30-60
Construction Design and Management (DF)				
178000	Construction Technology – Core and Sustainable Construction	120-280	60	30-60
178001	Carpentry and Masonry Technical Skills	120-280	60	30-60
178002	Mechanical, Electrical and Plumbing Systems	120-280	60	30-60
178019	Plan Reading	120-280	60	30-60
990364	Career Connections			30-60

Curriculum Code	Grades	CT Funded	Assessment	Counts toward Concentrator
VT	7-12	Yes	Required	Yes
V3	7-12	Yes	Not required	No
VM	7-9	Yes	Not required	No

- Career-Technical Middle School Courses require schools to complete a CTE-26 and program of study*.
- Students enrolled in Career-Technical Middle School Courses (VT, VM) are eligible for participation in Career-technical Student Organizations (CTSO).
- Granting High School credit for Career-Technical Middle School Course high school courses is a local school district decision.
- VM Courses do not count towards four course minimum.

*If you have a 7-12 grade building with a current CTE26 on file, no additional CTE26 in required, unless you add a new program to that building IRN.

Construction Technology – Core and Sustainable Construction

Subject Code: 178000

Students will learn principles in basic safety (10-hr OSHA), construction math, hand and power tool are and operation, blueprint reading, material handling, communication and employability skills. An emphasis will be placed on safe and green construction practices.

Carpentry and Masonry Technical Skills

Subject Code: 178001

This first course in the pathway will introduce to students the materials, methods, and equipment used in carpentry and masonry. Students will organize a project work sequence by interpreting plans and diagrams within a construction drawing set. They will layout and install basic wall, floor and roof applications. Students will perform introductory concrete applications including formwork, reinforcement, mixing, and finishing. Current advancements in technology, safety, applicable code requirements and correct practices are learned.

Mechanical, Electrical and Plumbing Systems

Subject Code: 178002

Students learn physical principles and fundamental skills across mechanical systems in construction. Students will select materials, assemble, and test basic electrical circuits. Students will select materials and assemble simple copper and plastic plumbing applications for both supply and drains. They will perform simple maintenance of electric motors, electric fixtures and plumbing fixtures. Students will be able to select and install basic ductwork components and learn the operation and maintenance of heating and cooling equipment.

Plan Reading

Subject Code: 178019

Students learn blueprint reading as it relates to the architecture and construction. Students will use scaling, orthographic projections, dimensioning practices, symbols, notations, and abbreviations to perform area calculations and to interpret floor plan, section, and elevations. Using construction plans, students will identify problems or shortcomings related to the layout and installation of materials for the project.

Career Connections

Subject Code: 990364

This course shows students how classroom learning translates into marketable skills. Through hands-on learning and local business involvement, students will engage in career-related experiences to acquire basic skills in various career fields. This provides students with tangible experiences to begin career decision making. Teachers have the flexibility to select career fields related to Ohio's in-demand jobs represented in the community.