

CCSD CAREER AND TECHNICAL STANDARDS AND BENCHMARKS INDUSTRIAL TECHNOLOGY

Scope and Sequence of Objectives (CTE/IT, CS.T, B.1)

Industrial Technology Standard (Technical): Students will acquire and apply technical processes, concepts and strategies to solve workplace and personal scenarios.

Benchmark 1: Understand and demonstrate the use of materials in industry.

Basic Man.	Metal Proc.	Advanced Man.	Voc. Man.
Estimate project/job costs.	Estimate project/job costs.	Estimate project/job costs.	Estimate project/job costs.
Identify ferrous and non-ferrous materials and their use.	Utilize advanced math skills in product design and development.	Utilize advanced math skills in product design and development.	Utilize advanced math skills in product design and development.
Demonstrate material fabrication.	Demonstrate material fabrication.	Demonstrate material fabrication.	Demonstrate material fabrication.
Understand and demonstrate the use of materials in manufacturing.	Understand and demonstrate the use of materials in manufacturing.	Understand and demonstrate the use of materials in manufacturing.	Understand and demonstrate the use of materials in manufacturing.
Identify component parts and read schematic diagrams.	Identify component parts and read schematic diagrams.	Identify component parts and read schematic diagrams.	Identify component parts and read schematic diagrams.

CCSD CAREER AND TECHNICAL STANDARDS AND BENCHMARKS INDUSTRIAL TECHNOLOGY

Scope and Sequence of Objectives (CTE/IT, CS.T, B.1)

Construction Tech	Building Trades I	Building Trades II	Tech Drafting	Intro to Engineering
1. Identify and describe different types of materials used in foundation walls and explain how to layout a foundation wall.	Identify the pros and cons of exterior finishes.	Identify the pros and cons of exterior finishes.	1. Describe and properly use standard drafting tools and machines such as triangles, protractors, scales, erasing shield, pencils, pens, erasers, compass and dividers.	1. The material of a product, how the material is prepared for use, its durability, and ease of recycling to impact a product's design, marketability, and life expectancy.
2. Identify and describe different types of materials used in floor framing and explain how to layout a floor. (around openings and long spans)	Identify the pros and cons of interior finish for walls, floors, trim/cabinets.	Identify the pros and cons of interior finish for walls, floors, trim/cabinets.	2. List the standard size sheets for drawing, and describe the difference between tracing paper, vellum and drafting film.	Identify component parts and read schematic diagrams.
3. Identify and describe different types of exterior coverings and describe their strengths and weaknesses.	Interpret a materials list.	Interpret a materials list.	3. Arrange and layout the three principle views of an object on a standard ANSI sheet, using proper centering techniques.	
4. Identify and describe different types of materials used in Roofing. Explain how to layout a shingles and seal around openings. (chimney, vents and exhaust pipes)	Estimate project/job costs.	Estimate project/job costs.		
	Identify types of wire and wire coverings.	Identify types of wire and wire coverings.		
	Demonstrate material fabrication.	Demonstrate material fabrication.		
	Identify component parts and read schematic diagrams.	Identify component parts and read schematic diagrams.		

CCSD CAREER AND TECHNICAL STANDARDS AND BENCHMARKS INDUSTRIAL TECHNOLOGY

Scope and Sequence of Objectives (CTE/IT, CS.T, B.1)

8 th Woods	8 th Electricity	8 th Metals	8 th Drafting	8 th Small Engines	7 th Ind. Tech.	6 th Ind. Tech.
1. Follow the steps to apply a finish.	1. Identify types of wire and wire coverings.	1. Interpret a materials list.			1. Follow the steps to apply a finish.	1. Follow the steps to apply a finish.
	2. Identify and wire electrical outlets.	2. Construct a sheet metal project.			2. Interpret a materials list.	2. Interpret a materials list.
	3. Identify and wire electrical switches.	3. Produce a forging project.			3. Identify and wire a S.P. switch and light.	
		4. Produce a foundry project.				
		5. Perform arc welding procedure.				