

CURRICULUM

Construction Technology Thomas Jefferson High School

Curriculum Strand: Measurement

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.1.10 D Apply scale as a way of relating concepts and ideas to one another by some measure. 3.1.12 D Analyze scale as a way of relating concepts and ideas to one another by some measure. 3.7.10 B Apply appropriate instruments and apparatus to examine a variety of objects and processes.	<ul style="list-style-type: none"> • Demonstrate an understanding of the customary scale to the 1/16" • Apply the use of various measuring tools for the customary system 	<ul style="list-style-type: none"> • Direct Instruction • Group Work • Hands-on Work • Demonstrations • Cooperative Learning • Class Discussions • Note Taking • Video 	<ul style="list-style-type: none"> • Activity Packets • Worksheets • Calculators • Measuring Devices • Computer 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Write-ups • Portfolio Check • Projects • Critical Thinking • Rubric • Peer Evaluation • Q/A 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • Additional Projects • More In-depth Projects • Technology Competition • Peer Instruction • Independent Research Projects • Field Trips

CURRICULUM

Construction Technology Thomas Jefferson High School

Curriculum Strand: *Current Trends in Construction Technology*

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.7.10 C Apply basic computer operations and concepts. 3.8.10 A Analyze the relationship between societal demands and scientific and technological enterprises. 3.8.12 A Synthesize and evaluate the interactions and constraints of science and technology on society. 3.8.10 B Analyze how human ingenuity and technological resources satisfy specific human needs and improve the quality of life. 3.8.12 B Apply the use of ingenuity and technological resources to solve specific societal needs and improve the quality of life.	<ul style="list-style-type: none"> • Identify new innovations, inventions associated with construction technology today • Analyze current issues relating to construction today • Identify safety concerns and issues in construction technology • Develop a research paper relating to the issues discussed relating to construction technology. • Identify careers relating to construction technology 	<ul style="list-style-type: none"> • Direct Instruction • Group Work • Hands-on Work • Demonstrations • Internet Research • Cooperative Learning • Brainstorming • Class Discussions • Note Taking 	<ul style="list-style-type: none"> • Activity Packets • Worksheets • Computer 	<ul style="list-style-type: none"> • Teacher Observation • In-Class Work • Write-ups • Projects • Critical Thinking • Essays • Rubric • Peer Evaluation • Q/A 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • Additional Projects • More In-depth Projects • Technology Competition • Peer Instruction • Independent Research Projects • Field Trips

CURRICULUM

Construction Technology Thomas Jefferson High School

Curriculum Strand: Electricity

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.6.10 C Apply physical technologies of structural design, analysis and engineering, personnel relations, financial affairs, structural production, marketing, research and design to real world problems. 3.7.12 A Apply advanced tools, materials and techniques to answer complex questions. 3.7.10 B Apply appropriate instruments and apparatus to examine a variety of objects and processes.	<ul style="list-style-type: none"> • Identify and describe the tools, materials, and concepts used in residential electricity • Identify safety issues for tools, machines, and the shop when working on electricity • Apply tools and electrical materials to in developing single pole switch circuits, 3-way switch circuits, 4-way switch circuits, and circuits requiring receptacles • Identify and describe the path of current flow in several electrical circuits • Analyze several electrical circuits 	<ul style="list-style-type: none"> • Direct Instruction • Group Work • Hands-on Work • Demonstrations • Cooperative Learning • Class Discussions • Note Taking • Video 	<ul style="list-style-type: none"> • Activity Packets • Worksheets • Calculators • Hand Tools 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Write-ups • Projects • Critical Thinking • Rubric • Q/A 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • Additional Projects • More In-depth Projects • Technology Competition • Peer Instruction • Independent Research Projects • Field Trips

CURRICULUM

Construction Technology Thomas Jefferson High School

Curriculum Strand: Electricity

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.6.10 C Apply physical technologies of structural design, analysis and engineering, personnel relations, financial affairs, structural production, marketing, research and design to real world problems. 3.7.12 A Apply advanced tools, materials and techniques to answer complex questions. 3.7.10 B Apply appropriate instruments and apparatus to examine a variety of objects and processes.	<ul style="list-style-type: none"> Analyze several electrical circuits in completing troubleshooting activities 	<ul style="list-style-type: none"> Direct Instruction Group Work Hands-on Work Demonstrations Cooperative Learning Brainstorming Class Discussions Note Taking Independent Design and Development Video 	<ul style="list-style-type: none"> Activity Packets Worksheets Hand Tools Measuring Devices Computer 	<ul style="list-style-type: none"> Teacher Observation Problem Solving In-Class Work Write-ups Projects Critical Thinking Rubric Peer Evaluation Q/A 	<ul style="list-style-type: none"> Extended Time Tutoring Technology Adapted Lessons Access to Learning Support Review and Re-teach Peer Interaction Group Instruction 	<ul style="list-style-type: none"> Additional Projects More In-depth Projects Technology Competition Peer Instruction Independent Research Projects Field Trips

CURRICULUM

Construction Technology Thomas Jefferson High School

Curriculum Strand: Plumbing

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.6.10 C Apply physical technologies of structural design, analysis and engineering, personnel relations, financial affairs, structural production, marketing, research and design to real world problems. 3.7.12 A Apply advanced tools, materials and techniques to answer complex questions. 3.7.10 B Apply appropriate instruments and apparatus to examine a variety of objects and processes.	<ul style="list-style-type: none"> • Identify tools, materials, and concepts relating to plumbing technology • Identify safety issues for tools, machines, and the shop when working on plumbing • Develop an understanding for soldering • Practice soldering on several plumbing circuits • Apply tools and materials in assembling toilets, sinks, and other plumbing circuits • Analyze plumbing problems in troubleshooting exercises 	<ul style="list-style-type: none"> • Direct Instruction • Group Work • Hands-on Work • Demonstrations • Cooperative Learning • Class Discussions • Note Taking • Video 	<ul style="list-style-type: none"> • Activity Packets • Worksheets • Calculators • Hand Tools • Measuring Devices 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Write-ups • Projects • Critical Thinking • Rubric • Peer Evaluation • Q/A 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • Additional Projects • More In-depth Projects • Technology Competition • Peer Instruction • Independent Research Projects • Field Trips

CURRICULUM

Construction Technology Thomas Jefferson High School

Curriculum Strand: Framing

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.6.10 C Apply physical technologies of structural design, analysis and engineering, personnel relations, financial affairs, structural production, marketing, research and design to real world problems. 3.7.12 A Apply advanced tools, materials and techniques to answer complex questions. 3.7.10 B Apply appropriate instruments and apparatus to examine a variety of objects and processes.	<ul style="list-style-type: none"> Identify tools, materials, and concepts relating to framing in residential construction Identify safety issues for tools, machines, and the shop when working on framing Define several terms relating to structural members of framing Develop an understanding for reading a floor plan in order to construct a structure 	<ul style="list-style-type: none"> Direct Instruction Group Work Hands-on Work Demonstrations Cooperative Learning Brainstorming Class Discussions Note Taking Independent Design and Development Video 	<ul style="list-style-type: none"> Activity Packets Worksheets Calculators Hand Tools Production Machines Measuring Devices 	<ul style="list-style-type: none"> Teacher Observation Tests Quizzes Problem Solving In-Class Work Projects Critical Thinking Rubric Peer Evaluation Q/A 	<ul style="list-style-type: none"> Extended Time Tutoring Technology Adapted Lessons Access to Learning Support Review and Re-teach Peer Interaction Group Instruction 	<ul style="list-style-type: none"> Additional Projects More In-depth Projects Technology Competition Peer Instruction Independent Research Projects Field Trips

CURRICULUM

Construction Technology Thomas Jefferson High School

Curriculum Strand: Framing

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.6.10 C Apply physical technologies of structural design, analysis and engineering, personnel relations, financial affairs, structural production, marketing, research and design to real world problems. 3.7.12 A Apply advanced tools, materials and techniques to answer complex questions. 3.7.10 B Apply appropriate instruments and apparatus to examine a variety of objects and processes.	<ul style="list-style-type: none"> Identify the procedures for laying out walls and structures based on reading floor plans Layout walls for the development of a specified structure Construct walls and other framed structures to certain predetermined specifications 	<ul style="list-style-type: none"> Direct Instruction Group Work Hands-on Work Demonstrations Cooperative Learning Brainstorming Class Discussions Note Taking Video 	<ul style="list-style-type: none"> Activity Packets Worksheets Calculators Hand Tools Production Machines Measuring Devices 	<ul style="list-style-type: none"> Teacher Observation Tests Quizzes Problem Solving In-Class Work Projects Critical Thinking Rubric Peer Evaluation Q/A 	<ul style="list-style-type: none"> Extended Time Tutoring Technology Adapted Lessons Access to Learning Support Review and Re-teach Peer Interaction Group Instruction 	<ul style="list-style-type: none"> Additional Projects More In-depth Projects Technology Competition Peer Instruction Independent Research Projects Field Trips

CURRICULUM

Construction Technology Thomas Jefferson High School

Curriculum Strand: Roofing

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.6.10 C Apply physical technologies of structural design, analysis and engineering, personnel relations, financial affairs, structural production, marketing, research and design to real world problems. 3.7.12 A Apply advanced tools, materials and techniques to answer complex questions. 3.7.10 B Apply appropriate instruments and apparatus to examine a variety of objects and processes.	<ul style="list-style-type: none"> • Identify tools, materials, and concepts relating to roofing • Identify safety issues for tools, machines, and the shop when working on roofs • Identify procedures for laying out a roof for shingle materials • Develop skills by installing shingles onto roof • Identify procedures for patching a roof • Demonstrate an understanding by successfully patching a roof 	<ul style="list-style-type: none"> • Direct Instruction • Group Work • Hands-on Work • Demonstrations • Cooperative Learning • Brainstorming • Class Discussions • Note Taking • Video 	<ul style="list-style-type: none"> • Activity Packets • Worksheets • Calculators • Hand Tools • Measuring Devices 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Projects • Critical Thinking • Rubric • Peer Evaluation • Q/A 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • Additional Projects • More In-depth Projects • Technology Competition • Peer Instruction • Independent Research Projects • Field Trips

CURRICULUM

Construction Technology Thomas Jefferson High School

Curriculum Strand: Interior Finish

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.6.10 C Apply physical technologies of structural design, analysis and engineering, personnel relations, financial affairs, structural production, marketing, research and design to real world problems. 3.7.12 A Apply advanced tools, materials and techniques to answer complex questions. 3.7.10 B Apply appropriate instruments and apparatus to examine a variety of objects and processes.	<ul style="list-style-type: none"> • Identify tools, materials, and concepts relating to interior finish • Identify safety issues for tools, machines, and the shop when working with interior finishes • Develop an understanding for hanging and finishing drywall in residential construction • Develop skills in hanging and finishing drywall • Develop skill in successfully patching a hole in drywall • Develop skills in painting drywall • Assess and evaluate the quality of finished drywall 	<ul style="list-style-type: none"> • Direct Instruction • Group Work • Hands-on Work • Demonstrations • Cooperative Learning • Brainstorming • Class Discussions • Note Taking • Video 	<ul style="list-style-type: none"> • Activity Packets • Worksheets • Calculators • Hand Tools • Measuring Devices 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Projects • Critical Thinking • Rubric • Peer Evaluation • Q/A 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • Additional Projects • More In-depth Projects • Technology Competition • Peer Instruction • Independent Research Projects • Field Trips

CURRICULUM

Construction Technology Thomas Jefferson High School

Curriculum Strand: Trim

PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, workbooks, software, hardware, etc	*Assessment Procedures *Additional adaptations, modification, accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/ acceleration will be provided per IEP
3.6.10 C Apply physical technologies of structural design, analysis and engineering, personnel relations, financial affairs, structural production, marketing, research and design to real world problems. 3.7.12 A Apply advanced tools, materials and techniques to answer complex questions. 3.7.10 B Apply appropriate instruments and apparatus to examine a variety of objects and processes.	<ul style="list-style-type: none"> • Identify tools, materials, and concepts relating to trim • Identify safety issues for tools, machines, and the shop when working with trim • Identify procedures for cutting and installing trim in residential construction • Develop skills by successfully cutting and installing trim 	<ul style="list-style-type: none"> • Direct Instruction • Group Work • Hands-on Work • Demonstrations • Cooperative Learning • Brainstorming • Class Discussions • Note Taking • Video 	<ul style="list-style-type: none"> • Activity Packets • Worksheets • Calculators • Hand Tools • Production Machines • Measuring Devices 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Projects • Critical Thinking • Rubric • Peer Evaluation • Q/A 	<ul style="list-style-type: none"> • Extended Time • Tutoring • Technology • Adapted Lessons • Access to Learning Support • Review and Re-teach • Peer Interaction • Group Instruction 	<ul style="list-style-type: none"> • Additional Projects • More In-depth Projects • Technology Competition • Peer Instruction • Independent Research Projects • Field Trips