



## Great Oaks Construction Framing & Finishing Technologies Essential Skills Profile

This profile provides an outline of the skills required for the successful completion of this career program. Additional information is located on the Great Oaks website at <https://hs.greatoaks.com/future-students/essential-skills-for-high-school-programs> and select the corresponding career program.

### Recommended WorkKeys® Scores for Construction Framing and Finishing Technology

Applied Mathematics – 3
Workplace Documents – 3
Graphic Literacy – 4

\*Practice tests and more information at <https://jobseeker.ohiomeansjobs.monster.com/Assessments/Home.aspx>

### Recommended Essential Skills to Successfully Complete the Program

<b>Rating Key:</b>	<b>Low = Slightly Essential</b>	<b>Medium = Essential</b>	<b>High = Very Essential</b>
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Key Vocational Factors		Rating
Visual Acuity	The ability to detect differences/details visually	High
Depth Perception	The ability to detect the physical distance/depth of objects in space and time	High
Oral Communication	The ability to express/explain ideas	High
Oral Expression	The ability to verbally explain and express self in an intelligible manner so others will understand	Medium
Written Communication	The ability to communicate in a written format and record information accurately	High
Physical Mobility/Strength	Stooping, bending, walking, demonstrating, and using equipment such as weights	Medium
Eye-hand Coordination	The ability to use tools	High
Auditory Acuity	The ability to detect differences in pitch and sound	Medium
Safety Understanding	Able to comprehend hazards of working with tools, materials, equipment, and environmental conditions; able to wear personal protective equipment suitable for task	High

Worker Trait Skills	Rating
Ability to get along with others	High
Ability to work independently, without close supervision	High
Ability to work toward work including tasks of minimal interest	High
Ability to work accurately, recheck, and correct work, to an industry standard	High
Ability to stick to assigned task to a positive/expected conclusion	High
Ability to follow and retain:	
Multistep oral instructions	High
Written instructions/technical manuals - multistep	High
Simple to complex diagram instructions	High

Visual models or demonstrated instructions	High
Ability to use tools of trade (power saws, man lift or personnel lift, levels, forklifts, blow torch, hammers, squares, power routers, ladders, etc.)	High
Ability to use numerical data (count, measure, compute, etc.) in an applied setting	High
Ability to discriminate between objects of similar:	
Size	High
Shape	High
Color	Medium
Spatial relationship	High
Ability to organize work process/follow defined procedures	High
Coordination (eye-hand)	
Able to sequence events or follow a sequence as necessary	High
Active Listening: Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times	High
Operation Monitoring: Watching gauges, dials, or other indicators to make sure the machine is working properly	High
Coordination: Adjusting actions in relation to others' actions	High

<b>Applied Mathematics Skills * Recommended WorkKeys® Scores 3</b>	
Understanding of numbers	Work with whole numbers and decimals. Convert fractions to decimals and/or convert from decimals to percentages.
Mathematical Calculations	Use one or two-step calculations to solve problems, decide what information, calculations or unit conversions to use to answer a problem
Solving problems with math	Solve problems that require mathematical operations with multiple units (e.g. 6 feet 4 inches or 4 hours 30 minutes), identify calculation mistakes
<b>Workplace Documents Skills * Recommended WorkKeys® Scores 3</b>	
Complexity	Mostly clear and direct but with multiple details, may have complex sentences and/or conditional situations
Information and detail	May need to meet inferences, differentiate/interpret details
Vocabulary	Industry jargon, acronyms, use context to understand words
<b>Graphic Literacy Skills * Recommended WorkKeys® Scores 4</b>	
Using Charts/graphs	Locate information in charts or graphs
Interpreting Information	Compare two or more pieces of information, identify trends/patterns, make inferences and identify graphics that accurately represent data

**Additional Recommended Abilities**

<b>Manual Dexterity</b>	The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
<b>Arm-Hand Steadiness</b>	The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
<b>Multi-limb Coordination</b>	The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.

**Knowledge Required in Construction Framing and Finishing Technology Field**

<b>Building and Construction</b>	Knowledge of materials, methods, and tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.
<b>Mechanical</b>	Knowledge of machines and tools, including their designs, uses repair, and maintenance.
<b>Administration and Management</b>	Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

**Additional Considerations**

Inside and outside work in harsh conditions-heat, snow, rain, ice, etc.	Must be ok with heights, moving, bending, lifting, Stopping, and using ladders.
Must understand the hazards of working with tools and materials	Must wear protective equipment suitable for the task.
Will get dirty	

**Construction Framing and Finishing Technology Work Activities**

Follow established safety rules and regulations and maintain a safe and clean environment.	Measure and mark cutting lines on materials, using a ruler, pencil, chalk, and marking gauge.
Study specifications in blueprints, sketches, or building plans to prepare project layout and determine the dimensions and materials required.	Install structures or fixtures, such as windows, frames, floorings, trim, or hardware, using carpenters' hand or power tools.
Shape or cut materials to specified measurements, using hand tools, machines, or power saws.	Build or repair cabinets, doors, frameworks, floors, or other wooden fixtures used in buildings, using woodworking machines, carpenter's hand tools, or power tools.
Verify the trueness of structure, using plumb bob and level.	Select and order lumber or other required materials.
Arrange for subcontractors to deal with special	Maintain records, document actions, and present

areas, such as heating or electrical wiring work.	written progress reports.
Prepare cost estimates for clients or employers.	Work with or remove hazardous material.
Assemble and fasten materials to make frameworks or props, using hand tools and wood screws, nails, dowel pins, or glue.	Finish surfaces of woodwork or wallboard in houses or buildings, using paint, hand tools, or paneling.
Dig ditches or trenches, backfill excavations, or compact and level earth to grade specifications, using picks, shovels, pneumatic tampers, or rakes.	Tend pumps, compressors, or generators to provide power for tools, machinery, or equipment or to heat or move materials, such as asphalt.
Perform site activities required of green-certified construction practices, such as implementing waste management procedures, identifying materials for reuse, or installing erosion or sedimentation control mechanisms.	Perform building weatherization tasks, such as repairing windows, adding insulation, or applying weather-stripping materials.
Perform construction laborer duties at green building sites, such as renewable energy plants or wind turbine installations.	Read plans, instructions, or specifications to determine work activities.
Control traffic passing near, in, or around work zones.	Measure materials or distances, using square, measuring tape, or rule to lay out work.
Cut or saw boards, timbers, or plywood to the required size, using a handsaw, power saw, or woodworking machine.	Erect forms, frameworks, scaffolds, hoists, roof supports, or chutes, using hand tools, plumb rule, and level.
Examine structural timbers and supports to detect decay, and replace timbers as required, using hand tools, nuts, and bolts.	Dig or direct digging of post holes and set poles to support structures.

**Technology**

Project Management Software	Operating System Software
Computer-Aided Design (CAD) Software	E-Mail

**Certifications Students Can Earn**

Credential	Ohio Graduation Points
CITF Career Connection Certificate Level 1	4
CITF Career Connection Certificate Level 2	4
CITF Career Connection Certificate Level 3	4
Manlift Operations	1
OSHA 10 Construction Industry	1
First Aid/CPR	1

**Possible College Credits**

College Credit Plus (CCP)	The CCP program provides Ohio high school students an opportunity to complete college courses and earn transcribed credit.
Career Technical Assurance Guides (CTAGs)	CTAGs award college credit for career-technical coursework to students who complete an approved course and earn a qualifying score at the end of course exam.
Articulated Credit	Some Great Oaks career-technical programs have agreements with colleges where students can earn credit toward a specific degree.

Please speak with your school counselor, Great Oaks counselor and/or career technical instructor to learn more about these potential opportunities.

**Possible Career Pathways**

Carpenter	Cabinet Maker
Carpentry Subcontractor	Foreperson
Construction Superintendent	Building Inspector