

Connecticut CTE

# **Essential Knowledge and Skills**

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- a Apply data and measurements to solve a problem. [EKS.03.02](#)
  - 1 Apply data and measurements to solve a problem. [EKS.02.03](#)
  - 2 Construct charts/tables/graphs from functions and data. [EKS.02.04](#)
  - 3 Analyze data when interpreting operational documents. [EKS.02.05](#)
- b Demonstrate science knowledge and skills required to pursue the full range of post-secondary and career education opportunities. [EKS.04](#)
  - 1 Evaluate scientific constructs including: conclusions, conflicting data, controls, data, inferences, limitations, questions, sources of errors, and variables. [EKS.04.01](#)
  - 2 Apply scientific methods in qualitative and quantitative analysis, data gathering, direct and indirect observation, predictions, and problem identification. [EKS.04.02](#)
- c Employ critical thinking skills independently and in teams to solve problems and make decisions (e.g., analyze, synthesize and evaluate). [EKS.05](#)
  - 2 Analyze elements of a problem to develop creative solutions. [EKS.05.02](#)
    - 1 Identify common tasks that require employees to use problem-solving skills. [EKS.05.01](#)
    - 3 Describe the value of using problem-solving and critical thinking skills to improve a situation or process. [EKS.05.03](#)
    - 4 Create ideas, proposals, and solutions to problems. [EKS.05.04](#)
    - 5 Evaluate ideas, proposals, and solutions to problems. [EKS.05.05](#)
    - 6 Use structured problem-solving methods when developing proposals and solutions. [EKS.05.06](#)
    - 7 Generate new and creative ideas to solve problems by brainstorming possible solutions. [EKS.05.07](#)
    - 8 Critically analyze information to determine value to the problem-solving task. [EKS.05.08](#)
    - 9 Guide individuals through the process of recognizing concerns and making informed decisions. [EKS.05.09](#)
    - 10 Identify alternatives using a variety of problem-solving and critical thinking skills. [EKS.05.10](#)
    - 11 Evaluate alternatives using a variety of problem-solving and critical thinking skills. [EKS.05.11](#)
- d Implement personal and jobsite safety rules and regulations to maintain safe and healthful working conditions and environments. [EKS.06](#)
  - 1 Assess workplace conditions with regard to safety and health. [EKS.06.01](#)
  - 2 Align safety issues with appropriate safety standards to ensure a safe workplace/jobsite. [EKS.06.02](#)

- 3 Identify safety hazards common to workplaces. [EKS.06.03](#)
  - 4 Identify safety hazards common to workplaces. Identify safety precautions to maintain a safe worksite. [EKS.06.04](#)
  - 5 Select appropriate personal protective equipment as needed for a safe workplace/jobsite. [EKS.06.05](#)
  - 6 Inspect personal protective equipment commonly used for selected career choice. [EKS.06.06](#)
  - 7 Use personal protective equipment according to manufacturer rules and regulations. [EKS.06.07](#)
  - 8 Employ a safety hierarchy and communication system within the workplace/jobsite. [EKS.06.08](#)
  - 9 Implement safety precautions to maintain a safe worksite. [EKS.06.09](#)
- e Employ leadership skills to accomplish organizational goals and objectives. [EKS.07](#)
- 1 Exhibit traits such as empowerment, risk, communication, focusing on results, decision-making, problem solution, and investment in individuals when leading a group in solving a problem. [EKS.07.01](#)
  - 2 Exhibit traits such as compassion, service, listening, coaching, developing others, team development, and when acting as a manager of others in the workplace. Understanding and appreciating others [EKS.07.02](#)
  - 3 Exhibit traits such as enthusiasm, creativity, conviction, mission, courage, concept, focus, principle-centered living, and change when interacting with others in general. [EKS.07.03](#)
  - 4 Consider issues related to self, team, community, diversity, environment, and global awareness when leading others. [EKS.07.04](#)
  - 5 Exhibit traits such as innovation, intuition, adaptation, life-long learning and coachable to develop leadership potential over time. [EKS.07.05](#)
  - 6 Analyze leadership in relation to trust, positive attitude, integrity, and willingness to accept key responsibilities in a work situation. [EKS.07.06](#)
  - 7 Describe observations of outstanding leaders using effective management styles. [EKS.07.07](#)
  - 8 Participate in civic and community leadership and teamwork opportunities to enhance skills. [EKS.07.08](#)
- f Identify and demonstrate positive work behaviors and personal qualities needed to be employable. [EKS.08](#)
- 1 Demonstrate self-discipline, self-worth, positive attitude, and integrity in a work situation. [EKS.08.01](#)
  - 2 Demonstrate flexibility and willingness to learn new knowledge and skills. [EKS.08.02](#)
  - 3 Exhibit commitment to the organization. [EKS.08.03](#)

- 4 Identify how work varies with regard to site, from indoor confined spaces to outdoor areas, including aerial space and a variety of climatic and physical conditions. [EKS.08.04](#)
  - 5 Apply communication strategies when adapting to a culturally diverse environment. [EKS.08.05](#)
  - 6 Manage resources in relation to the position (i.e. budget, supplies, computer, etc.). [EKS.08.06](#)
  - 7 Identify positive work-qualities typically desired in each career. [EKS.08.07](#)
  - 8 Manage work roles and responsibilities to balance them with other life roles and responsibilities. [EKS.08.08](#)
- g** Demonstrate skills related to seeking and applying for employment to find and obtain a desired job. [EKS.09](#)
- 1 Use multiple resources to locate job opportunities. [EKS.09.01](#)
  - 2 Prepare a résumé. [EKS.09.02](#)
  - 3 Prepare a letter of application. [EKS.09.03](#)
  - 4 Complete an employment application. [EKS.09.04](#)
  - 5 Interview for employment. [EKS.09.05](#)
  - 6 List the standards and qualifications that must be met in order to enter a given industry. [EKS.09.06](#)
  - 7 Employ critical thinking and decision-making skills to exhibit qualifications to a potential employer. [EKS.09.07](#)