



ENERGY INDUSTRY EMPLOYABILITY SKILLS BLUEPRINT

This Blueprint contains the subject matter content of this Skill Connect Assessment. This Blueprint does **NOT** contain the information one would need to fully prepare for a SkillsUSA Championships contest. Please refer to the *SkillsUSA Championships Technical Standards* CD-ROM for the current year or purchase and download the relevant "Contest Singles." Both are available through www.skillsusa.org > Shop > Educational Materials Catalog.

Standards and Competencies

Demonstrate effective communication skills (such as public speaking, listening, reading, and writing) to function successfully in a variety of settings including school, home and work.

- Identify communication strengths and weaknesses
- Explain the importance of writing effectively
- Demonstrate effective communication with others
- Practice active listening
- Describe how to read with understanding
- Review a professional journal
- Complete a job application
- Research resume writing
- Demonstrate interviewing skills
- Develop a working relationship with a mentor
- Develop and make a presentation promoting career choice
- Write an article for a professional journal in a career area

Develop an understanding of effective customer relations and demonstrate proper customer service behavior

- Define the customer (internal and external)
- Identify customer expectations
- Develop customer service skills
- Understand the cost of customer service

Demonstrate career research and career development skills

- Research career interests
- Participate in a job shadow
- Define future occupations
- Identify personal interests
- Evaluate career goals and establish long-term goals
- Recognize how quickly jobs change and opportunities arise
- Explore opportunities for advanced training
- Effectively use available resources to identify fast growing career areas
- Formulate a Career Action Plan
- Construct a job search network
- Complete a job application
- Research resume writing
- Demonstrate interviewing skills



Demonstrate essential workplace or life skills

- Recognize and identify stress factors
- Recognize the importance of goals
- Evaluate professional development traits
- Complete a self-assessment and identify individual learning styles
- Discover self-motivation techniques and establish short-term goals
- Determine individual time-management skills
- Measure/modify short-term goals
- Recognize the benefits of good time management decisions
- Effectively use time-management tools, such as day planners, electronic schedulers and online calendars

Develop personal financial skills

- Develop a budget and differentiate between needs and wants
- Prioritize purchases with a budget
- Create a spending and savings plan
- Develop a business plan

Develop social etiquette and interpersonal skills

- Identify cooperative behaviors
- Engage in team building and negotiating
- Explain the importance of first impressions
- Describe and perform proper introductions
- Set basic table settings

Understand technology systems and use information technology tools

- Identify the various types of computer-based data
- Use basic e-mail functions,
- Use web-search applications
- Demonstrate software applications - word-processing, presentation, database, spreadsheet, design software and Web page software
- Design, conduct and evaluate a survey
- Assemble an electronic employment portfolio
- Construct a job search network

Apply conflict management skills, and an understanding of cultural, social, and ethnic diversity to achieve group goals and consensus

- Explore what's ethical in the workplace or school
- Identify personal conflicts that arise in the workplace
- Develop awareness of cultural diversity and equity issues
- Devise methods of conflict resolution
- Demonstrate evaluation skills

Understand legal and ethical responsibilities and exhibit personal accountability, integrity, and responsibility

- Identify personal qualities that are desirable for the workplace
- Describe workplace components
- Select characteristics of a positive image

- Examine ethics and values in the workplace

Identify problems, understands context, and develops creative solutions.

- Demonstrate evaluation skills
- Produce a list of potential volunteer activities
- Recognize benefits of doing a community service project
- Serve as a volunteer in the community

Demonstrate knowledge of engineering & technology principles using STEM

- Utilize Science Principles to solve engineering & technology problems
 - Apply knowledge of physical principles such as force, friction & energy
 - Analyze the relationship between weight & mass
 - Apply knowledge of laws of gravity
- Utilize Technology to solve engineering & technology problems
 - Apply knowledge of mass production
 - Apply knowledge of innovation
 - Apply knowledge of continuous improvement and optimization
 - Apply knowledge of the relationship & interchangeability among components of systems
- Utilize Engineering principles to solve engineering & technology problems
 - Apply knowledge of appropriate trade-offs within design requirements
- Use Mathematical formulas and techniques to solve engineering & technology problems
 - Add, Subtract, Multiply and Divide with whole numbers, decimals, and percents
 - Utilize measurement tools, methods, and conversions
 - Calculate geometric sizes and shapes
 - Solve simple algebraic equations

Engineering Design

- Utilize the Engineering Design Cycle
 - Identify the problem or opportunity
 - Identify possible solutions through problem solving skills
 - Apply brainstorming techniques
 - Collect and analyze data effectively
 - Explain cause and effect relationships
 - Select optimum specifications and create models & prototypes
 - Test solutions in a controlled environment
 - Redesign based on the evaluation of the models & prototypes
 - Implement and monitor for future improvements
- Utilize troubleshooting & quality control methods for diagnosis

Individual & Team Project Planning

- Identify project requirements & estimate resources
- Create an effective project plan
 - Prioritize tasks
 - Define milestones
- Anticipate project constraints and create alternative plans
- Evaluate and report on the results of the project

Teamwork Skills

- Define team roles & responsibilities
- Demonstrate effective communication skills
- Demonstrate positive group dynamics



Engineering and technological impacts on the Environment

- Recognize sustainability methods and materials
- Recognize the impact of engineering & technology on the environment

Safety

- Comply with safety procedures & proper ways to perform work
- Select the right tool for the job & use tools safely
- Utilize resources to understand how things safely work

Employability

- Communicate in a brief and complete manner
- Utilize basic computer technology skills effectively
- Show willingness to learn new assignments, procedures & technologies
- Maintain a professional and ethical attitude