MODULE DESCRIPTION

This module introduces students to the trade and technical career area. Students identify their natural interests and abilities as they explore trade and technical career cluster options of construction, transportation, manufacturing, visual arts and communication, human and public service, and information technology. Students learn essential workplace and technical skills needed for success in trade and technical fields. Students define what they truly enjoy and match career options to their individual interests. This module encourages students to reflect, critically and objectively, when planning their secondary and postsecondary education pathways.

GUIDING QUESTION

What knowledge and skills are necessary to demonstrate introductory understanding of the personal skills, abilities, and aptitudes needed for success in trade and technical careers?

MODULE CONTENT

1. TRADE AND TECHNICAL CAREERS

STUDENTS WILL:
  a) Define the term "Career Cluster" and explain the career cluster system
  b) Tell how trade and technical careers are represented in the career clusters of construction, transportation, manufacturing, visual arts and communication, human and public services, and information technology
  c) Identify specific trade and technical fields that are included in each cluster
  d) List and describe the primary activities, tools, and work environments for specific trade and technical fields
  e) Differentiate amongst the various methods for payment of wages and salaries in trade and technical fields
  f) Discover personal interests in trade and technical careers through completion of interest inventories
  g) Participate in classroom activities to identify personal aptitudes and abilities for skills required in trade and technical careers

2. ESSENTIAL WORKPLACE COMPETENCIES

STUDENTS WILL:
a) Explain the importance of applied knowledge, effective relationships, and workplace skills to success in trade and technical careers
b) Compare and contrast the opportunities for individual initiative, teamwork, collaboration, and leadership in trade and technical careers
c) Describe strategies for assessing and adjusting personal behaviors to meet workplace expectations in trade and technical careers

3. TECHNICAL SKILLS

STUDENTS WILL:
a) Define "Industry Standards" and tell how industry standards contribute to consistent, safe, high-quality work in trade and technical fields
b) Describe the features and characteristics of technical manuals and practice reading and interpreting technical manuals in a variety of classroom workplace simulations
c) List industry-specific computations and practice computations in a variety of classroom workplace simulations
d) Demonstrate appropriate use, care, and maintenance of tools in a variety of classroom workplace simulations
e) Assess personal technical skills and develop a plan for skill practice and improvement

4. PROBLEM SOLVING

STUDENTS WILL:
a) Anticipate that novel situations will arise in trade and technical work situations
b) Analyze resources, processes, and techniques commonly used to resolve problems in trade and technical workplaces
c) Communicate the nature of a problem, the intended solution, and the probable outcome
d) Demonstrate individual and group problem-solving skills through practice of these skills in a variety of classroom workplace situations
e) Evaluate and refine problem-solving methods based on the strengths and weaknesses of solutions

bonuses are included. Student pairs present their findings and prepare a "Compensation Computation" problem for classmates to solve using the information presented. Together students discuss the benefits and challenges associated with each pay model.

HEALTH, SAFETY, AND WELLNESS

PERSONALITY ASSESSMENT

Invite the school counselor or school psychologist to work with students on a worker personality trait assessment. Based on the results, students identify a trade or technical career that would match their worker personality and one that would conflict. Students write a reflection evaluating the accuracy of their assessment results and summarizing ways worker personalityassessments can be useful career planning tools.

PROBLEM SOLVING AND INNOVATION

SCENARIO PROBLEM

Provide students with a scenario describing an issue they might face as a trade or technical worker (e.g., providing electricity to a remote area). Students research the current practices and processes used by the industry to address this problem. Together students identify the strengths and weaknesses of the current practices. Students collaborate in small groups to formulate new solutions for tackling the scenario issue, predict possible complications, and provide alternatives. Groups present their scenario solutions and refine them based on feedback from classmates.

SUSTAINABILITY

EMPLOYMENT PROJECTIONS

Provide students with data showing employment projections for trade and technical careers over the next ten years. Students analyze the data and develop a list of the ten careers that will have the greatest shortages. Students research the characteristics of these careers to determine possible reasons for the shortages. Students develop a marketing plan to promote the career and build a new cadre of workers. Post the plan on the class website.

STANDARDS ADDRESSED

NEW YORK STATE CAREER DEVELOPMENT AND OCCUPATIONAL STUDIES (CDOS) STANDARDS

STANDARD 1: CAREER DEVELOPMENT

Students will be knowledgeable about the world of work, explore career options, and relate personal skills, aptitudes, and abilities to future career decisions

Systems Thinking, Technology Use
The skills employees need to successfully perform work tasks

RESOURCES

Posting of resources on this form does not constitute an endorsement from the New York State Education Department nor does it imply that the following resources are mandatory or the only ones that can be used. Teachers and administrators ensure that resources align with local policies and are responsible for choosing the resources have the final authority, in alignment with local policies, to choose and utilize the resources that best meet the needs of their students. Questions regarding compliance with Education Law 2D should be directed to your administrator and/or chief information officer.

NEW YORK STATE DEPARTMENT OF LABOR: NEW YORK STATE CAREER ZONE

https://www.careerzone.ny.gov

Career Zone is a no cost online career exploration and planning tool developed by the New York State Department of Labor. It offers career and education information on thousands of careers, as well as, self-assessment and career planning tools. Career Zone is appropriate for users from middle school through adult.

UNITED STATES DEPARTMENT OF LABOR CAREER ONESTOP

https://www.careeronestop.org

CareerOneStop is the career, training, and job search website for U.S. Department of Labor. The website serves job seekers, businesses, students, and career advisors with a variety of free online tools, information, and resources.

ASSOCIATION OF CAREER AND TECHNICAL EDUCATION: CAREER PLANNING GUIDE

https://www.acteonline.org/wp-

ADVANCE CTE: MIDDLE LEVEL CAREER INTEREST INVENTORY

https://cte.careertech.org/sites/default/files/StudentInterestSurvey-English.pdf

AdvanceCTE provides a Career Interest Inventory worksheet to use with students in helping them identify the potential matches to the sixteen career clusters available to them.

NEW YORK STATE TRADE AND TECHNICAL TEACHERS' ASSOCIATION (NYSTTTA)

https://www.nysttta.org/

New York State Trade and Technical Teachers' Association (NYSTTTA) provides statewide opportunities for collaboration and focused professional development on curriculum, project ideas, assessment strategies, technical assessments, and student management.

CAREER AND TECHNICAL EDUCATION TECHNICAL ASSISTANCE CENTER: NEW YORK

http://nyctecenter.org/

The Career and Technical Education Technical Assistance Center (CTE TAC) operates under a state contract to assist the New York State Education Department (NYSED) in carrying out its mission of improving the quality, access, and delivery of career and technical education through research-based methods and strategies resulting in broader CTE opportunities for all students.