CAREER PREPAREDNESS

Unit	Technology Skill Applications	Time on Task: 5 Hours/300 Minutes

Course Content Standard(s)	8. Diagnose problems with hardware, software, and advanced network systems. Examples: printer, projector, power supply, task manager, network connectivity

College and Career Readiness Standards
(Teachers should select the appropriate grade span standard(s) as it pertains to reading and writing.)

Reading Standards for Literacy in Science and Technical Subjects 6-12 <u>or</u> Reading Standards for Literacy in History/Social Studies 6-12	Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6-12	Standards for Mathematical Practice
2., 4., 10.	4.	

Learning Objective(s)	The student will: 1. Identify hardware, software, and advanced network systems components. 2. Demonstrate hardware, software, and advanced network systems preventive maintenance. 3. Diagnose problems with hardware, software, and advanced network systems.

21st Century Competencies	☒ Critical Thinking ☒ Communication ☒ Collaboration ☒ Creativity Source: Partnership for 21st Century Skills (www.p21.org/)
Essential Question(s)	How does preventive maintenance impact productivity? How do you troubleshoot hardware? How do you troubleshoot software? How do you troubleshoot advanced network systems?

Content Knowledge	Suggested Instructional Activities	Suggested Materials, Equipment, and Technology Resources
I. Computer set-up	Students will observe teacher demonstration of a computer system set-up. Students will watch the video ***What's Inside My Computer*** at http://computer.howstuffworks.com/inside-computer.htm.	Computer and Components Internet Video: What's Inside My Computer

II.   Hardware
    A. Central Processing Unit (CPU)
    B. Peripheral Devices
    C. Input/Output Devices
    D. Other
		Computer
		Internet
		Malfunctioning Computers
		Word Processing Software
		Printer

III.   Software
    A. Operating Systems
    B. Applications
	Students will utilize software Help feature to troubleshoot and resolve hypothetical issues provided by the teacher. Students will utilize technology to produce a clear and coherent report summarizing the process used to resolve the issues. Examples of hypothetical issues: **Operating Systems** – browser freezes, memory low, content will not display, update needed, browser will not start, etc.; **Applications** – changing line spacing, creating tables, mail merge, saving file type, changing design and/or layout, creating distribution lists, adding a contact, folder cleanup, adding animation, viewing slides, inserting graphics/images, etc.	Software
		Computer
		Printer
		Hypothetical Issues

IV. Advanced Network Systems	Students develop an understanding of advanced network systems after viewing the video ***Networking*** at http://teachertube.com/viewVideo.php?video_id=79156&title=Networking&vpkey=&album_id=. Students will diagnose hypothetical network connectivity problems	

	utilizing *Computer Troubleshooting for Teachers and Students Networking* Section	
Assessment of Learning	**Formative Assessments** (AQTS 2.8) • Class Participation	**Summative Assessments** (AQTS 2.9) • Troubleshooting pamphlet

Sample Career Options	Computer Support Specialist, Customer Service Representative, Help Desk Representative, Network Technician, Information Technology Support, Information Center Specialist, User Support Analyst
Online Experience	Does this lesson address the required online experience? ☐ Yes ☒ No If yes, please indicate length of time in minutes. Click here to enter text.
Unit/Course CTSO Activity *(if applicable)*	Competitive Event (if applicable). Members assist with computer troubleshooting and repairs as a school and/or community service project.

Culminating Product	Students will prepare a troubleshooting pamphlet for one of the following: hardware, software, or advanced network systems.
Course/Program Credential(s): ☐ Credential ☐ Certificate ☐ Other:	