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Curriculum Catalog

Career and Technical Education Series

Career Explorations II

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## Career Explorations II Course Overview

The Career Explorations II course is designed to give seventh- and eighth-grade students an opportunity to explore various CTE subjects. Specifically, students will be able to learn about careers involving various technical fields from computers to agriculture.

Each unit introduces one particular field and explains its past, present, and future. The goal is to whet students' appetites for these careers. Students can then explore that career in more detail as a high school student.

### Objectives

- Identify the basic components of a computer system and its use within a networking/communications environment.
- Discuss the history, development, and use of the Internet and mobile computing technology in business and society.
- Explore systems design and implementation.
- State the purpose of a computer network, and explain the role of network hardware in achieving that purpose.
- Identify the advancement of agriculture to the present day.
- Explain sustainable agriculture and its impact on society..
- Understand the STEM field along with the concepts, theories, practical applications, and STEM careers.

Unit 1: Information Technology	
Career Explorations II	<b>Assignments</b>
	1. Course Overview
	2. Computer Systems and Networks
	3. Network Ethics and Security
	4. Project: Benefit Analysis Study: Small Business Expansion
	5. Information Storage
	6. Project: Correspondence Between Stringer and Newspaper Editor: Media Preview
	7. Quiz: Computer Systems and Networks
8. Internet in Business and Society	
9. Human-Centered Technology	
10. Project: Biometrics Report	
11. Mobile Computing	
12. Project: Geocache Treasure Hunt	
13. Quiz: Internet in Business and Society	
14. Special Project*	
15. Test	
16. Glossary and Credits	

Unit 2: Introduction to Information Support and Services	
Career Explorations II	<b>Assignments</b>
	1. Supporting the Business Workflow Model
	2. Project: Understanding Software Development Models
	3. Operating Systems, Hardware, and Software Selection
	4. Project: Building a Mind Map
	5. Implementation and End-User Training
	6. Project: Preparing a Support Plan
	7. Quiz: On-Premise Systems
8. Public Clouds	
9. Project: Moving to the Cloud	
10. Private Clouds	
11. Hybrid Clouds	
12. Project: Companies in the Hybrid Cloud	
13. Quiz: Cloud-Based Systems	
14. Special Project*	
15. Test	
16. Glossary and Credits	

Unit 3: Introduction to Network Systems	
Career Explorations II	<b>Assignments</b>
	1. Networking Concepts
	2. Project: Report: Technology Devices
	3. Network Devices and Components
	4. Network Topologies
	5. Project: Hardware Awareness
	6. Quiz: Computer Networks
	7. The OSI Reference Model
	8. The TCP/IP Networking Model
9. Project: Slide Show: Networking Layers	
10. Data Encapsulation	
11. Project: Slide Show: Data Encapsulation	
12. Quiz: OSI and TCP/IP Networking Models	
13. Special Project*	
14. Test	
15. Glossary and Credits	

Unit 4: Introduction to Agriculture, Food, and Natural Resources	
Career Explorations II	<b>Assignments</b>
	1. People and Agriculture
	2. Project: People, Agriculture, and Society
	3. Advances in Agriculture
	4. Today's Agricultural Consumer
	5. Project: Percent Spent
	6. Quiz: Overview of Agriculture
	7. Sustainable Agriculture
	8. Project: Research and Learn: The Power of Poo!
9. Agriculture and the Economy	
10. Project: Research and Learn: Commodities and Exchanges	
11. Food Distribution and Safety	
12. Quiz: Agriculture's Role in Society	
13. Special Project*	
14. Test	
15. Glossary and Credits	

Unit 5: Introduction to Stem	
Career Explorations II	<b>Assignments</b>
	1. What is STEM Education?
	2. The Great Discoverers and Discoveries
	3. Project: Timeline of Great Discoverers and Discoveries in the STEM Field
	4. Identify Careers in Science, Technology, Engineering, and Mathematics
	5. Project: Exploring Careers in the STEM Field
	6. Quiz: Introduction
	7. Get Organized: Outlines and Outliners!
	8. Project: Create a Google Website
9. Get Organized: Mind Maps and Mind Mapping!	
10. Education and Training in STEM	
11. Project: Mind Map of Personal STEM Education and Career Plan	
12. Quiz: What Lies Ahead?	
13. Special Project*	
14. Test	
15. Glossary and Credits	

Unit 6: Course Project, Review and Final Exam	
CE II	<b>Assignments</b>
	1. Course Project: And the Results Are...*
	2. Review
	3. Exam

(\*) Indicates alternative assignment