Odysseyware®

CURRICULUM OVERVIEW

Career Explorations II
Career and Technical Educations Series

Table of Contents

Career Explorations II Course Overview

The Career Explorations II course is designed to give middle school 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.

Career Explorations II: Course Requirements

- Access to the Internet to view various course-related Web sites and conduct research.
- Access to Microsoft® PowerPoint® or a similar program.
- Ability to conduct personal interviews for some projects.

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

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

Unit 3: Introduction to Network Systems

Assignments

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

Assignments

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

Assignments

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

Assignments

1. Course Project: And the Results Are…*
2. Review
3. Exam

(*) Indicates alternative assignment