Arkansas CTE

KeyCode: Grades 7-8 (2023)

Determine and discuss the value of professionalism and involvement in professional, academic, and leadership activities. 1

1 **Recognize and discuss the academic and professional benefits of participating in a CTSO.** 1.1

1 Discuss Career and Technical Student Organizations (CTSO) such as FBLA and DECA. 1.1.1

2 Investigate CTSO competitive events and identify sources to help prepare for success in competitive events. (If you have an active middle level chapter). 1.1.2

3 Understand the importance of professional dress and evaluate appropriate dress for CTSO conferences. 1.1.3

2 **Develop personal traits for success.** 1.2

1 Identify effective communication skills by comparing personal vs. business communication. (e.g., text messages, emails). 1.2.1

2 Comprehend and explain the importance of punctuality and attendance. 1.2.2

3 Identify traits important to success. (e.g., initiative, positive attitude, enthusiasm, self-confidence). 1.2.3

4 Discuss integrity and ethical leadership. 1.2.4

5 Identify and practice fundamental etiquette skills. (e.g., introductions, handshakes, and eye contact) 1.2.5

6 Participate in soft skill evaluations. 1.2.6

3 **Understand and demonstrate the concept and importance of one's digital presence.** 1.3

1 Compare and contrast positive and negative social media presence. 1.3.1

2 Critique one's own digital presence. 1.3.2

Demonstrate the operation and management of equipment in the classroom. 2

1 **Understand and identify computer hardware and software.** 2.1

1 Practice proper care of computer equipment. (e.g., headphones, mouse, keyboard, etc.). 2.1.1

2 Demonstrate and maintain proper use of computer equipment. 2.1.2

3 Identify computer hardware and software. (e.g., peripherals, computer and audio settings, etc.). 2.1.3

2 **Utilize proper computer management practices.** 2.2

1 Establish effective file and password management. (e.g., Cloud Storage, Networks, etc.). 2.2.1

2 Access a gradebook program to develop accountability. 2.2.2

Demonstrate and operate the alphanumeric keyboard using the touch typing method. 3

1 **Demonstrate and apply the proper touch typing techniques.** 3.1

1 Demonstrate the proper techniques necessary for operation of the keyboard (e.g., seating, body posture, finger placement, etc.). 3.1.1

2 Demonstrate correct touch typing techniques and spacing rules (e.g., punctuation marks, one space after a period, etc.). 3.1.2

3 Key documents while applying proper keyboarding techniques. 3.1.3

2 **Understand and identify proper data entry techniques.** 3.2

1 Understand proper 10-key techniques using numeric keypad on a keyboard. 3.2.1

2 Identify careers utilizing the 10-key techniques. 3.2.2

Create simple documents using proper formatting features. 4

1 **Utilize text and document formatting features.** 4.1

1 Determine and utilize the proper text formatting features. (e.g., font type, font style, color and case). 4.1.1

2 Utilize paragraph formatting functions. (e.g., line spacing, tabs, paragraph spacing, and columns). 4.1.2

3 Apply page formatting features. (e.g., borders, numbering, bullets, etc.). 4.1.3

2 **Construct properly formatted documents.** 4.2

1 Key business documents using appropriate formatting guidelines. (e.g., memo, email, letters, reports). 4.2.1

2 Edit documents using appropriate proofreaders' marks. 4.2.2

3 Key documents from handwritten samples. 4.2.3

Demonstrate proficiency in the Arkansas Computer Science Coding Block standards. (Minimum 5 Weeks) 5

1 **Computational Thinking and Problem Solving – Students will analyze and utilize problem-solving strategies.** 5.1

1 Examine traditional programming algorithms, including searches and sorts. 5.1.1

2 Describe the steps needed to efficiently solve a problem. 5.1.2

3 Manually test algorithms with simple data to observe accuracy of anticipated output. 5.1.3

4 Demonstrate appropriate collaborative behaviors (e.g., integrating feedback, providing useful feedback, understanding and accepting multiple perspectives) when solving problems 5.1.4

2. **Data, Information, and Security – Students will analyze and utilize concepts of cybersecurity.** 5.2
    1. Apply strategies to protect personal digital footprints (e.g., game profiles, shares on social media, other online accounts) and the responsibilities and opportunities of living, learning, and working in a digitally connected world 5.2.1
    2. Research and describe real-world cybersecurity problems (e.g., identity theft) as they relate to personal cybersecurity, and how to apply digital and physical methods for protecting and securing personal information 5.2.2
3. **Algorithms and Programs – Students will create, evaluate, and modify algorithms.** 5.3
    1. Explain the logic involved in how a computer program executes (e.g., flow charts, program flow) 5.3.1
    2. Discuss and apply best practices of backend program design (e.g., comments, documentation, whitespace) 5.3.2
    3. Test a computer program with data and evaluate output for accuracy 5.3.3
    4. Find and debug errors in a computer program 5.3.4
4. **Algorithms and Programs – Students will create programs to solve problems.** 5.4
    1. Implement the following programming concepts: 5.4.1
        a. data types 5.4.1.A
        b. variables creation 5.4.1.B
        c. variable assignment 5.4.1.C
        d. conditional branching (e.g., if, if-else, multi-branch) 5.4.1.D
        e. iteration (e.g., for, while) 5.4.1.E
        f. functions 5.4.1.F
    2. Create a program using a text-based programming language. 5.4.2
5. **Computers and Communication – Students will analyze communication methods and systems used to transmit information among computing devices.** 5.5
    1. Identify major components and functions of computer systems (e.g., hardware, software) and networks (e.g., network components, wired, wireless) and recommend methods to secure computer systems and networks. 5.5.1
6. **Professionalism and Impacts of Computing – Students will analyze the impacts of technology and professionalism within the computing community.** 5.6
    1. Research diverse careers and career opportunities that are influence by computer science and the technical and soft skills needed for each. 5.6.1