
Coal City Unit District #1
Introduction to Computer Science
Career and Technical Curriculum

CTE.ICS:1 Students will demonstrate knowledge of programming design. (NETS 2, 3, 4)

- CTE.ICS:1-1 Define basic terms associated with programming.
- CTE.ICS:1-2 Recognize games and dynamic systems.
- CTE.ICS:1-3 Describe the history of programming.
- CTE.ICS:1-4 Evaluate a program based on concept, design, balance, functionality, and sound.
- CTE.ICS:1-5 Identify and define the elements of basic programming languages.
- CTE.ICS:1-6 Design and create a balanced program using the elements of a programming language.

CTE.ICS:2 Students will utilize entry-level programming software, to create a program a computer can execute. (NETS 1, 2, 3, 4, 6)

- CTE.ICS:2-1 Define basic features and functions of different programming softwares.
- CTE.ICS:2-2 Demonstrate basic programming features; including motion, sound, control, and sensing utilized in the software.
- CTE.ICS:2-3 Practice using sprites, costumes, scripts, and stage to create a simple program.
- CTE.ICS:2-4 Create a dialogue between two sprites.
- CTE.ICS:2-5 Demonstrate the methods of moving sprites in a program.
- CTE.ICS:2-6 Improve the functionality, usability, and accessibility of created programs.
- CTE.ICS:2-7 Implement the concepts of variables and conditionals to create simple programs.

**CTE.ICS:3 Students will design programs using advanced programming software.
(NETS 1, 2, 4, 6)**

- CTE.ICS:3-1 Define basic terms associated with the software.
- CTE.ICS:3-2 Identify the basic features of simulation software.
- CTE.ICS:3-3 Demonstrate understanding of the step-by-step logical thinking that characterizes writing computer programs.
- CTE.ICS:3-4 Design a product by using event-based computer programming.
- CTE.ICS:3-5 Develop a product using object-oriented programming.
- CTE.ICS:3-6 Create a program using the elements of design software.
- CTE.ICS:3-7 Design, test, analyze, and adjust coding solutions by applying problem-solving skills.
- CTE.ICS:3-8 Analyze coding solutions for elements of thoroughness and correctness.

CTE.ICS:4 Students will demonstrate knowledge and utilize entry-level language programming to create a program. (NETS 2, 4, 6)

- CTE.ICS:4-1 Define basic terms utilized in the language.
- CTE.ICS:4-2 Identify the programming language features, including the basic terms utilized in the language.
- CTE.ICS:4-3 Practice using the basic features of coding in the context of creating a simple program.
- CTE.ICS:4-4 Identify why variables and conditionals are used to develop a program.
- CTE.ICS:4-5 Select appropriate programming structures.
- CTE.ICS:4-6 Design a program that corresponds to a set of specifications.
- CTE.ICS:4-7 Explain how a particular program functions.
- CTE.ICS:4-8 Identify how position and move objects within a program.
- CTE.ICS:4-9 Design, test, and execute a program that corresponds to a set of specifications.