

Computer Science Principles
Pacing Guide

Unit	Description		Standard
FBLA/ Employability Skills IT-CSP-1 Demonstrate employability skills required by business and industry. This Standard will be integrated throughout the course & Unit 1 (14 lessons) Digital Information	Explore how computers store complex information like numbers, text, images and sound and debate the impacts of digitizing information.	2 – 3 Weeks	IT-CSP-3 Apply abstractions in digital data to explain how bits are grouped to represent higher-level abstractions such as numbers and characters.
Unit 2 (9 lessons) The Internet	Learn about how the Internet works and discuss its impacts on politics, culture, and the economy.	2 - weeks	IT-CSP-7 Gain insight into the operation of the Internet, study characteristics of the Internet and systems built upon it, and analyze important concerns, such as cybersecurity. IT-CSP-8 Develop a logical argument from the many ways in which computing enables innovation and our methods for communicating, collaborating, problem solving, and doing business, and analyze the potential benefits and harmful effects of computing in a the way people think, work, live, and play.
Unit 3 (11 lessons)Pacing Intro to App Design	Design your first app while learning both fundamental programming concepts and collaborative software development processes.	2 - weeks	IT-CSP-2 Create digital artifacts that foster creative expression including programs, digital music, videos, images, documents, and combinations of these such as infographics, presentations, and web pages.
Unit 4 (15 lessons) Variables, Conditionals, and Functions	Expand the types of apps you can create by adding the ability to store information, make decisions, and better organize code.	2 - weeks	IT-CSP-6 Create programs that translate human intention into computational artifacts including music, images, visualizations, and more while exploring the concepts, techniques and development used in writing programs.
Unit 5 (18 lessons) Lists, Loops, and Traversals	Build apps that use large amounts of information and pull in data from the web to create a wider variety of apps.	2 - weeks	IT-CSP-5 Develop, express, implement, and analyze algorithms analytically and empirically.

Unit 6 (6 lessons) Algorithms	Design and analyze algorithms to understand how they work and why some are considered better than others.	2 - weeks	IT-CSP-5 Develop, express, implement, and analyze algorithms analytically and empirically.
Unit 7 (11 lessons) Parameters, Return, and Libraries	Learn how to design clean and reusable code that you can share with a single classmate or the entire world.	2 - weeks	IT-CSP-3 Apply abstractions in digital data to explain how bits are grouped to represent higher-level abstractions such as numbers and characters.
Unit 8 (18 lessons) Create PT Prep	Practice and complete the Create Performance Task (PT).	1 - weeks	IT-CSP-2 Create digital artifacts that foster creative expression including programs, digital music, videos, images, documents, and combinations of these such as infographics, presentations, and web pages. 2.1 Understand and use software
Unit 9 (9 lessons) Data	Explore and visualize datasets from a wide variety of topics as you hunt for patterns and try to learn more about the world around you.	2 - weeks	IT-CSP-4 Design and create computer programs to process and extract information to gain insight and knowledge.
Unit 10 (14 lessons) Cybersecurity and Global Impacts	Research and debate current events at the intersection of data, public policy, law, ethics, and societal impact.	2 - weeks	IT-CSP-7 Gain insight into the operation of the Internet, study characteristics of the Internet and systems built upon it, and analyze important concerns, such as cybersecurity.