

CompuScholar, Inc.

Alignment to South Carolina Principles of Digital Technology (5270)

South Carolina Course Details:

Course Title:	5270 - Principles of Digital Technology (formerly IT Foundations)
Grade Level:	8th - 10th Grade
Standards Link:	Principles of Digital Technology (Feb 2020 Standards)

CompuScholar Course Details:

Course Title:	CompuScholar: Digital Savvy
Course ISBN:	978-0-9887070-8-5
Course Year:	2024

Note 1: Citation(s) listed may represent a subset of the instances where objectives are met throughout the course.

Note 2: Citation(s) for a "Lesson" refer to the "Lesson Text" elements and associated "Activities" within the course, unless otherwise noted. The "Instructional Video" components are supplements designed to introduce or reinforce the main lesson concepts, and the Lesson Text contains full details.

Note 3: "Supplemental" or "Suppl." citation(s) refer to Supplemental chapters included at the end of the course.

Course Description

Principles of Digital Technology is designed to prepare students to become proficient in digital citizenship, in addition to learning concepts in computer and information technology, including hardware, software, Internet, and network systems, as well as Office productivity software.

Course Standards

A. SAFETY	CITATION(S)
1. Review school safety policies and procedures.	Chapter 8, Lesson 1 Chapter 18, Lesson 4 Chapter 24, Lesson 3
2. Review classroom safety rules and procedures.	Chapter 8, Lesson 1 Chapter 18, Lesson 4 Chapter 24, Lesson 3
3. Review safety procedures for using equipment in the classroom.	Chapter 8, Lesson 1 Chapter 18, Lesson 4 Chapter 24, Lesson 3
4. Identify major causes of work-related accidents in office environments.	Chapter 24, Lesson 3
5. Demonstrate safety skills in an office/work environment.	Chapter 24, Lesson 3 Suppl. Chapter 1, Lesson 2

B. STUDENT ORGANIZATIONS	CITATION(S)
1. Identify the purpose and goals of a Career and Technology Student Organization (CTSO).	Suppl. Chapter 3, Lesson 2
2. Explain how CTSOs are integral parts of specific clusters, majors, and/or courses.	Suppl. Chapter 3, Lesson 2
3. Explain the benefits and responsibilities of being a member of a CTSO.	Suppl. Chapter 3, Lesson 2
4. List leadership opportunities that are available to students through participation in CTSO conferences, competitions, community service, philanthropy, and other activities.	Suppl. Chapter 3, Lesson 2
5. Explain how participation in CTSOs can promote lifelong benefits in other professional and civic organizations.	Suppl. Chapter 3, Lesson 2

C. TECHNOLOGY KNOWLEDGE	CITATION(S)
1. Demonstrate proficiency and skills associated with the use of technologies that are common to a specific occupation.	Chapters 7, 9, 10, 11, 15, 16 (Common workplace apps)
2. Identify proper netiquette when using e-mail, social media, and other technologies for communication purposes.	Chapter 8, Lesson 4 Chapter 16, Lessons 1, 2 Chapters 17, 18
3. Identify potential abuse and unethical uses of laptops, tablets, computers, and/or networks.	Chapter 8, Lessons 1 - 4 Chapter 18, Lesson 4
4. Explain the consequences of social, illegal, and unethical uses of technology (e.g., piracy; illegal downloading; licensing infringement; inappropriate uses of software, hardware, and mobile devices in the work environment).	Chapter 8 Chapter 18, Lesson 4 Suppl. Chapter 1, Lesson 2
5. Discuss legal issues and the terms of use related to copyright laws, fair use laws, and ethics pertaining to downloading of images, photographs, documents, video, sounds, music, trademarks, and other elements for personal use.	Chapter 8, Lessons 2, 4, 5
6. Describe ethical and legal practices of safeguarding the confidentiality of business-related information.	Chapter 8, Lessons 2, 3, 4
7. Describe possible threats to a laptop, tablet, computer, and/or network and methods of avoiding attacks.	Chapter 8, Lessons 1 - 4 Chapter 18, Lesson 4 Suppl. Chapter 1, Lesson 2

D. PERSONAL QUALITIES AND EMPLOYABILITY SKILLS	CITATION(S)
1. Demonstrate punctuality.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
2. Demonstrate self-representation.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)

3. Demonstrate work ethic.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
4. Demonstrate respect.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
5. Demonstrate time management.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
6. Demonstrate integrity.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
7. Demonstrate leadership.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
8. Demonstrate teamwork and collaboration.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
9. Demonstrate conflict resolution.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
10. Demonstrate perseverance.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
11. Demonstrate commitment.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
12. Demonstrate a healthy view of competition.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
13. Demonstrate a global perspective.	Suppl. Chapter 1, Lesson 1
14. Demonstrate health and fitness.	Chapter 24, Lessons 2, 3
15. Demonstrate self-direction.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
16. Demonstrate lifelong learning.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 1 Chapters 14, 25 (Team Projects) Suppl. Chapter 3, Lesson 2

E. PROFESSIONAL KNOWLEDGE	CITATION(S)
1. Demonstrate effective speaking and listening skills.	Many opportunities throughout the course, e.g: Chapter 11, Lesson 6 Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects)
2. Demonstrate effective reading and writing skills.	Many opportunities, e.g. Chapter 2, Lesson 5 Chapter 7 Activity Chapter 14, Activity 1
3. Demonstrate mathematical reasoning.	Chapter 10, Lesson 6 Chapter 10, Activity 2 Chapter 23, Lessons 2, 3 Chapter 23 Activity
4. Demonstrate job-specific mathematics skills.	Chapter 10, Lesson 6 Chapter 10, Activity 2 Chapter 23, Lessons 1, 2 Chapter 23 Activity Suppl. Chapter 2, Lessons 1, 3
5. Demonstrate critical-thinking and problem-solving skills.	Chapter 5, Lesson 3 Chapter 7, Lesson 3 Chapter 13, Lesson 3 Chapters 14, 25 / Activity 3 Suppl. Chapter 1, Lessons 1, 4, 5
6. Demonstrate creativity and resourcefulness.	Chapter 11, Activities 1, 2 Chapter 13, Lessons 1, 3 Chapter 15, Lessons 1, 2 Chapters 14, 25 (Team Projects) Suppl. Chapter 2, Lesson 2
7. Demonstrate an understanding of business ethics.	Chapter 8, Lessons 2, 4, 5 Chapter 24, Lesson 2
8. Demonstrate confidentiality.	Chapter 8, Lessons 2, 4 Chapter 24, Lesson 2
9. Demonstrate an understanding of workplace structures, organizations, systems, and climates.	Chapters 13, 16, 24 Chapters 14, 25 Suppl. Chapter 3, Lessons 2 - 4
10. Demonstrate diversity awareness.	Chapter 13, Lessons 1, 3 Chapter 24, Lesson 2 Chapters 14, 25 (Team Projects) Suppl. Chapter 1, Lessons 1, 3

11. Demonstrate job acquisition and advancement skills.	Chapter 13, Lessons 1, 2, 3 Chapter 18, Lesson 3 Chapter 24, Lessons 1, 2 Chapter 24 Activity
12. Demonstrate task management skills.	Chapter 13, Lesson 2 Chapter 24, Lesson 2 Chapters 14, 25 / Activity 1
13. Demonstrate customer-service skills.	Chapter 24, Lesson 2

F. COMPUTING FUNDAMENTALS	CITATION(S)
1. Computer Hardware:	
a. Identify types of computers, how they process information and how individual computers interact with other computing systems and devices.	Chapter 1, Lessons 1 - 2 Chapter 6, Lessons 1 - 4
b. Identify the purpose and function of computer hardware/peripherals.	Chapter 1, Lessons 2 - 3
c. Identify various input devices, e.g., touchscreen, capacitive stylus, modified keyboard/mouse.	Chapter 1, Lesson 3
d. Identify system requirements that go into the decision for purchasing computer equipment, e.g., RAM, CPU, hard drive type, video card, and other PCI devices.	Chapter 1, Lessons 1 - 2
e. Identify how to maintain computer equipment and solve common problems relating to computer hardware.	Chapter 5
f. Analyze power management options such battery life and power settings.	Chapter 3, Lesson 2
g. Differentiate between shutting down, restarting, and sleeping/hibernating a computer.	Chapter 3, Lesson 2
2. Networks:	
a. Differentiate various network platforms, e.g., LAN, WAN, wireless, VPN, used within a business environment.	Chapter 6, Lesson 2 Chapter 6, Lesson 4
b. Identify the purposes of servers, routers, modems, and switches.	Chapter 6, Lesson 1
c. Differentiate connections in a network, e.g., secure, unsecure.	Chapter 6, Lesson 6
d. Identify platform limitations within a network, e.g., compatibility and application performance.	Chapter 6, Lesson 4
e. Describe bandwidth and internet connection speed, e.g., Mbps.	Chapter 6, Lesson 1
f. Describe how computers are connected to communication networks and the Internet.	Chapter 6, Lessons 1 - 5
g. Identify the purpose and format of IP addresses (IPv4, IPv6, Subnet, and Gateways).	Chapter 6, Lesson 3

3. Software: a. Operating Systems	
1. Distinguish between common operating systems, e.g., Microsoft Windows, Linux, Mac OS X, Android, and iOS.	Chapter 3, Lesson 1
2. Identify what an operating system is and how it works, and solve common problems related to operating systems.	Chapter 3, Lessons 1, 2 Chapter 5, Lessons 2, 3
3. Manipulate and control the Windows desktop, files, and disks; identify how to change system settings, install and remove software.	Chapter 2, Lesson 4 Chapter 3, Lessons 2, 3 Chapter 4, Lessons 1, 2, 3
3. Software: b. Applications Software	
1. Identify how software/hardware work together.	Chapter 1, Lessons 2, 3 Chapter 2, Lessons 1, 2
2. Identify how software is developed and upgraded.	Chapter 2, Lesson 1 Chapter 5, Lesson 2 Chapters 22, 23
3. Identify different types of software and general concepts relating to software categories.	Chapter 2, Lessons 1, 2
4. Demonstrate how to customize a Microsoft Office application, e.g., Quick Access Toolbar, AutoSave, default font size, print settings	Chapter 9, Lesson 3
4. Digital Communications:	
a. Identify various digital communication devices.	Chapter 1, Lessons 1, 2
b. Identify features of digital communication subscriptions.	Chapter 1, Lesson 2
c. Identify the benefits and limitations of Wi-Fi and cellular connections.	Chapter 1, Lesson 2 Chapter 6, Lesson 1
d. Identify advantages and implications of owning a device, carrier and connection plans, and contracts.	Chapter 1, Lesson 2
e. Differentiate between SMS and MMS.	Chapter 16, Lesson 2
f. Evaluate the mechanics and basic features of instant messaging and chat when using Skype, FaceTime, or Google Hangouts, etc.	Chapter 16, Lessons 2, 3 Chapter 17, Lessons 1, 2
g. Evaluate apps based on abilities and limitations of digital devices.	Chapter 2, Lesson 4
5. File Sharing, Backup and Restore	
a. Differentiate system backup, restore, and reformatting processes.	Chapter 5, Lesson 2
b. Identify reasons for backing up files.	Chapter 5, Lesson 2
c. Identify the benefits and limitations of various backup media for saving and backing up data, e.g., the cloud, external hard drive, USB, and SD cards.	Chapter 5, Lesson 2

d. Demonstrate the ability to reformat any storage device.	N/A (students typically do not have permission for this rarely-needed activity)
e. Identify benefits and limitations of file sharing options, e.g., network share, cloud storage, e-mail, and portable storage drive.	Chapter 4, Lesson 4
f. Identify situations in which you should compress/zip files before transferring them.	Chapter 4, Lessons 2, 4
g. Demonstrate compressing/zipping and extracting files.	Chapter 4, Lesson 2 Chapters 19, 20, 21 Activities
6. Security	
a. Identify best practices in credential management, e.g., creating and storing secure and unsecure user names and passwords.	Chapter 8, Lessons 1, 3
b. Identify best practices in personal computer security, e.g., logging off or locking a computer, clearing browser history.	Chapter 8, Lesson 1 Chapter 18, Lesson 4 Suppl. Chapter 1, Lesson 2
c. Identify the different protocols used to access websites, e.g., HTTP, HTTPS, locked symbol.	Chapter 6, Lesson 6
d. Differentiate between various types of security threats, e.g., viruses, malware, Trojan programs, phishing, and social engineering.	Chapter 8, Lessons 1, 2 Suppl. Chapter 1, Lesson 2
e. Explain the purpose and use of antivirus, firewall, and surveillance software.	Chapter 8, Lessons 1, 2, 3
f. Choose and apply antivirus and firewall software, if available.	Chapter 8, Lesson 1
7. Cloud Computing:	
a. Define cloud computing.	Chapter 2, Lesson 5
b. Differentiate between cloud storage versus cloud access.	Chapter 2, Lesson 5 Chapter 4, Lesson 4 Chapter 5, Lesson 2
c. Demonstrate collaboration and participation via the cloud.	Chapter 4, Lesson 4 Chapter 9, Lesson 2 Chapter 10, Lesson 2 Chapter 14, Activity 1
d. Demonstrate the ability to grant and limit access to shared files in the cloud.	Chapter 4, Lesson 4 Chapter 9, Lesson 2 Chapter 14, Activity 1
e. Demonstrate the ability to upload, download, and synchronize files between devices.	Chapter 4, Lesson 4
f. Evaluate various online storage apps, e.g. Dropbox, OneDrive, OneNote, Photobucket, and others.	Chapter 4, Lesson 4 Chapter 5, Lesson 2

g. Evaluate various online office apps, e.g. Google Apps, Office 365, SaaS, CRM, LMS, etc.	Chapter 9, Lessons 1, 2 Chapter 10, Lessons 1, 2 Chapter 11, Lessons 1, 2
h. Compare apps within multiple platforms, e.g. browser, tablet, smartphone, desktop, and others.	Chapter 2, Lesson 4

G. KEY APPLICATIONS	CITATION(S)
1. Common Functions of Microsoft Application Software:	
a. Be able to start and exit a program, create, save, manage files, and utilize sources of online help.	Chapter 9, Lesson 1 Chapter 10, Lesson 1 Chapter 11, Lesson 1
b. Identify and perform common editing, formatting, and layout functions.	Chapter 9, Lessons 2, 3 Chapter 10, Lessons 2, 4 Chapter 11, Lessons 2, 3
c. Identify how to insert and format images.	Chapter 9, Lesson 5 Chapter 11, Lesson 3
d. Identify and perform common printing functions.	Chapter 9, Lesson 6 Chapter 10, Lesson 2 Chapter 11, Lesson 6
e. Identify and use templates.	Chapter 9, Lesson 2 Chapter 11, Lesson 2
2. Basic Word Processing Functions:	
a. Demonstrate the ability to modify documents, including the ability to use automatic formatting tools.	Chapter 9, Lessons 2, 3
b. Demonstrate the ability to insert, edit and format tables in a document.	Chapter 9, Lesson 5
c. Demonstrate the ability to use word processing tools to automate processes such as document review, security, and collaboration.	Chapter 9, Lessons 2, 4
d. Configure and modify page layout, paragraph, and print options.	Chapter 9, Lessons 3, 5, 6
3. Basic Spreadsheet Functions:	
a. Identify common worksheet elements, e.g., worksheets, workbooks, columns, rows, cells, ranges, etc.	Chapter 10, Lessons 2, 3
b. Demonstrate the ability to modify and format worksheet data.	Chapter 10, Lessons 2, 3, 4
c. Demonstrate the ability to sort and filter data.	Chapter 10, Lesson 5
d. Demonstrate the ability to apply formulas and functions with appropriate cell references to data.	Chapter 10, Lesson 6
e. Demonstrate the ability to add or modify charts.	Chapter 10, Lesson 7

f. Create a table, format data as a table, and apply table styles.	Chapter 10, Lessons 2, 3, 4
g. Demonstrate the ability to format the appearance of a worksheet, e.g., tab colors, row and column height and width.	Chapter 10, Lessons 3, 4
4. Basic Presentation Software:	
a. Demonstrate the ability to create, format simple presentations.	Chapter 11, Lessons 2, 3, 4
b. Demonstrate the ability to add, delete, and move slides.	Chapter 11, Lesson 2
c. Identify compatible file types and methods of embedding content into PowerPoint.	Chapter 11, Lessons 3, 4, 5
d. Identify and manage display options and connection methods that support audio and video content.	Chapter 11, Lesson 4
e. Demonstrate various uses of presentation views and layouts.	Chapter 11, Lessons 2, 6
f. Apply animation, effects, and transition.	Chapter 11, Lesson 4
g. Insert and format images.	Chapter 11, Lesson 3
h. Insert and configure playback of audio and video files.	Chapter 11, Lesson 4
5. Basic Database Applications:	
a. Identify relational database elements, e.g., fields, records, tables, and database.	Chapter 12, Lesson 2
b. Demonstrate the ability to create a basic database.	Chapter 12, Lesson 3
c. Use, query, and navigate a basic database.	Chapter 12, Lessons 4, 5
d. Identify metadata and its purpose.	Chapter 12, Lesson 2

H. LIVING ONLINE	CITATION(S)
1. Using the Internet and the World Wide Web:	
a. Differentiate between the World Wide Web and the internet.	Chapter 6, Lessons 4, 6
b. Describe how computers are connected to communication networks and the Internet.	Chapter 6, Lessons 1 - 4
c. Demonstrate the ability to create and locate online content.	Chapters 7, 17, 18, 19, 20, 21

d. Be able to use a standard web browsing application, i.e. Microsoft Internet Explorer/Edge, Mozilla Firefox, Safari, Chrome, Opera, etc.	Chapter 2, Lesson 3 and throughout the web-based course
e. Demonstrate the ability to search the Internet for information using a variety of search engines, e.g., Yahoo, Google, Bing, etc.	Chapter 7, Lessons 1, 2
f. Evaluate various websites for valid information including author, content, and audience.	Chapter 7, Lesson 3
g. Describe the concept of intellectual property infringement, e.g., copyright, censorship, licensing, and plagiarism.	Chapter 8, Lesson 5
2. The Impact of Computing and the Internet on Society	
a. Explain the impact of computing and the Internet on society.	Chapter 2, Lesson 5 Chapters 17, 18 Suppl. Chapter 1
b. Identify how computers are used in different areas of work, school, and home.	Chapter 1, Lessons 1, 2 Chapter 2, Lessons 2, 5 Chapters 7, 9, 10, 11, 16 - 18 Chapter 24, Lesson 1
c. Identify the risks of using computer hardware and software.	Chapter 8, Lessons 1, 4 Chapter 17, Lesson 1 Chapter 18, Lesson 4 Suppl. Chapter 1, Lesson 2
d. Identify how to use the Internet safely, legally, and responsibly.	Chapters 8, 16, 17, 18 Suppl. Chapter 1, Lesson 2
e. Describe threats to a computer network and online accounts, methods of avoiding attacks, and options for dealing with virus attacks.	Chapter 8, Lessons 1, 2, 3 Chapter 17, Lesson 1 Chapter 18, Lessons 1, 4 Suppl. Chapter 1, Lesson 2
3. Organizing Your Digital Life (Calendaring, Social Media, Online Conferencing, Streaming Media Literacy, and Digital Citizenship)	
a. Create events and appointments through an online calendar.	Suppl. Chapter 3, Lesson 4 / Activity 4
b. Create notifications, alerts, and rules in the online calendar.	Suppl. Chapter 3, Lesson 4 / Activity 4
c. Maximize the use of multiple calendars through the use of subscriptions and sharing.	Suppl. Chapter 3, Lesson 4 / Activity 4
d. Differentiate between intranet and internet.	Chapter 6, Lesson 4
e. Demonstrate the use of various Web 2.0 tools:	See Below
1. Blogs, wikis, and forums	Chapter 18, Lesson 2
2. Audio, video, and phone conferencing	Chapter 16, Lesson 3

3. Screen sharing	Chapter 16, Lesson 3
4. Streaming content using various devices	Chapter 16, Lesson 3 Chapter 17, Lesson 3
f. Differentiate between streaming and downloading files.	Chapter 17, Lesson 3
g. Analyze the different forms of electronic communications and apply the best method to use in a specific situation.	Chapter 16
h. Apply netiquette to electronic communications.	Chapter 8, Lesson 4 Chapter 16, Lessons 1, 2
4. Electronic Mail (E-mail)	
a. Identify e-mail applications and service providers.	Chapter 16, Lesson 1
b. Identify the components of an e-mail message.	Chapter 16, Lesson 1
c. Compose, send, and respond to an e-mail message using best practices.	Chapter 16, Lesson 1
d. Identify the purpose of an e-mail signature.	Chapter 16, Lesson 1
e. Identify, attach, and save e-mail attachments from a message.	Chapter 16, Lesson 1
f. Identify and create a contact list and records.	Chapter 16, Lesson 1
g. Create, manage, empty, move and delete folders.	Chapter 16, Lesson 1