Digital Technology Foundations

6160 18 weeks
6161 36 weeks

Table of Contents

Acknowledgments ......................................................................................................................................... 1
Course Description......................................................................................................................................... 2
Task Essentials Table....................................................................................................................................... 3
Curriculum Framework................................................................................................................................. 5
Exploring the Digital Input Technologies Mix ............................................................................................. 5
Practicing Digital Skills ............................................................................................................................... 10
Using Digital Tools and Resources.............................................................................................................. 18
Exploring Mobile Devices, Cloud Computing, and the Internet of Things (IoT) ........................................... 22
Applying Digital Literacy Skills .................................................................................................................. 26
Preparing for a Career ................................................................................................................................. 29
SOL Correlation by Task ............................................................................................................................... 33
Teacher Resources ....................................................................................................................................... 35
Cyber Security and Cyber Forensics Infusion Units ..................................................................................... 37
Entrepreneurship Infusion Units .................................................................................................................. 37
Appendix: Credentials and Career Cluster Information .............................................................................. 38

Acknowledgments

The components of this instructional framework were developed by the following curriculum development panelists:

Pamela Dalton, Instructor, Blacksburg Middle School, Montgomery County Public Schools
James Dingell, Owner, Performance Parts Inc., Oak Hill
Suggested Grade Level: 6 or 7 or 8
This foundation course introduces the use of relevant and emerging technologies, tools, and applications to prepare students for current workplace practices and everyday life. Students will demonstrate information processing using a variety of hardware and software and Internet-based tools to produce and integrate data in various formats. This course is designed for students wishing to progress through more advanced business and information technology coursework.

Recommended prerequisite(s): Keyboarding course(s) or teacher-approved demonstration of touch keyboarding skills

Task Essentials Table

- Tasks/competencies designated by plus icons (⊕) in the left-hand column(s) are essential
- Tasks/competencies designated by empty-circle icons (○) are optional
- Tasks/competencies designated by minus icons (⊖) are omitted
- Tasks marked with an asterisk (*) are sensitive.

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<th>Task Number</th>
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<td>⊕</td>
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<td>37</td>
<td>⊕</td>
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<td>Explain the functions of computing systems.</td>
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<td>Demonstrate booting, accessing, and exiting an OS and applications.</td>
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<td>42</td>
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<td></td>
<td>Collaborate using web-based resources.</td>
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<td></td>
<td></td>
<td>Format documents.</td>
</tr>
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<td></td>
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</tr>
<tr>
<td>45</td>
<td></td>
<td></td>
<td>Create a spreadsheet.</td>
</tr>
<tr>
<td>46</td>
<td></td>
<td></td>
<td>Format addresses on labels and envelopes.</td>
</tr>
<tr>
<td>47</td>
<td></td>
<td></td>
<td>Incorporate graphic elements in documents.</td>
</tr>
<tr>
<td>48</td>
<td></td>
<td></td>
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<tr>
<td>49</td>
<td></td>
<td></td>
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<tr>
<td>50</td>
<td></td>
<td></td>
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**Using Digital Tools and Resources**

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<thead>
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<td>51</td>
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**Exploring Mobile Devices, Cloud Computing, and the Internet of Things (IoT)**

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Save data to the cloud, so it will be accessible from a personal computer (PC), file-hosting service, smartphone, and other devices.

Research developments in IoT.

### Applying Digital Literacy Skills

63. Explain principles of digital citizenship.

64. Use search strategies on the Internet.

65. Navigate the Internet.

66. Manage an online account.

### Preparing for a Career

67. Research the use of digital technology in careers within the sixteen career clusters.

68. Identify personal interests, aptitudes, and attitudes found in successful students and professionals.

69. Develop a career plan.

70. Identify the importance of social media in the job-acquisition process.

71. Develop a digital portfolio.

72. Identify potential employment barriers for nontraditional groups and ways to overcome the barriers.

Legend: ⓈEssential ⓉNon-essential ⓇOmitted

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**Curriculum Framework**

**Exploring the Digital Input Technologies Mix**

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**Task Number 31**
Apply ergonomic guidelines for safe computer use.

Definition

Application should include

- demonstrating the positioning of the body for the hardware being used
- positioning the body according to the type of desk being used, including standing desks and adjustable desks
- positioning the keyboard directly in front of a chair, even with the front edge of the desk and at elbow height so wrist movement is not restricted
- adjusting visual components (e.g., placing the monitor 18 to 24 inches from the eyes, with the top edge of the display screen at eye level)
- taking short breaks every hour to relax the neck, shoulders, arms, wrists, and fingers
- identifying ergonomic guidelines for other devices (e.g., gaming, smartphones, tablets).

FBLA Competitive Events and Activities Areas

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 32

Identify ergonomic hazards in the workplace.

Definition

Identification should include

- defining workplace hazard
- giving examples of hazards and the effects of failing to address them (e.g., repetitive strain injury [RSI])
- identifying ways to prevent ergonomic hazards
- explaining the importance of workplace safety.

FBLA Competitive Events and Activities Areas

Introduction to Computer Science & Coding

Multimedia & Website Development
Task Number 33

Key alphabetic, numeric, and symbolic information, using a touch system.

Definition

Keying should include

- placing keyboard at the front edge of the desk
- keeping eyes on the copy, not on the keyboard, even when reaching for another row or key location
- planting feet on the floor
- positioning wrists low but not touching the frame
- curving fingers and placing them upright on the home keys
- maintaining correct, comfortable posture
- holding arms parallel with the pitch of the keyboard.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 34

Use keyboarding techniques to improve typing speed and accuracy.

Definition

Use should include

- identifying techniques that may be problematic (i.e., bad habits)
- practicing technique drills to correct the problematic techniques
- practicing drills that encourage speed and accuracy
- achieving a controlled rate of speed that promotes accuracy
Task Number 35

Research developments in relevant and emerging technologies.

Definition

Research should include the use of periodicals, the Internet, and other sources to describe relevant and emerging technologies.

Task Number 36

Identify technologies, tools, and applications and their uses for lifelong learning.

Definition

Identification of each should include its usefulness in electronic

- note-taking, writing, and text input
- scheduling and tracking of assignments
• maintaining calendars and task lists
• researching
• communicating and collaborating
• managing and organizing data.

FBLA Competitive Events and Activities Areas

Business Etiquette

Career Exploration

Community Service Project (Middle Level)

Critical Thinking

Digital Citizenship

Elevator Speech

Introduction to Computer Science & Coding

Multimedia & Website Development

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Task Number 37

Explain the functions of computing systems.

Definition

Explanation should include examples of computing devices (e.g., gaming systems, mobile devices) and operating systems (OS) and should include concepts such as

• input/output methods
• central processing unit (CPU)
• storage and retrieval of information (e.g., flash drives, internal and external hard drives, and cloud computing).

FBLA Competitive Events and Activities Areas

Career Exploration

Critical Thinking
Task Number 38

Demonstrate booting, accessing, and exiting an OS and applications.

Definition

Demonstration should include

- signing in and signing out of an OS and applications
- using hardware and application controls to boot, access, and exit an OS
- selecting an icon or searching the OS to access applications
- saving, sharing, and retrieving work
- minimizing random-access memory (RAM) usage
- exiting applications.

FBLA Competitive Events and Activities Areas

Career Exploration

Critical Thinking

Digital Citizenship

Introduction to Computer Science & Coding

Multimedia & Website Development

Practicing Digital Skills
**Task Number 39**

**Manipulate data, software, and OS.**

**Definition**

Manipulation should include using function keys; keyboard, program, or desktop shortcuts; and menu/tool bars for

- cutting/pasting and copying/pasting
- saving data
- opening and closing programs
- using a pointing device to pull down menus
- hovering to determine functionality.

**FBLA Competitive Events and Activities Areas**

Career Exploration

Critical Thinking

Digital Citizenship

Introduction to Computer Science & Coding

Multimedia & Website Development

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**Task Number 40**

**Use file-management techniques to manipulate and organize folders and files.**

**Definition**

Use should include

- creating or deleting
- naming or renaming
- opening or closing
• uploading or downloading
• moving
• copying
• sharing (including setting permissions and protecting privacy)
• saving
• using passwords to protect documents and files
• closing

folders and files as well as addressing formats and compatibilities (e.g., XLS vs. XLSX).

FBLA Competitive Events and Activities Areas

Career Exploration

Critical Thinking

Digital Citizenship

Elevator Speech

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 41

Edit copy.

Definition

Editing should include

• using correct spelling, punctuation, grammar, and sentence structure
• using reference materials and tools as appropriate
• determining whether collaboration is necessary (i.e., if content area expertise is required)
• tracking changes and reviewing comments
• evaluating the justification for a change
• making changes
• proofreading.

FBLA Competitive Events and Activities Areas

Business Etiquette
Career Exploration

Community Service Project (Middle Level)

Critical Thinking

Digital Citizenship

Elevator Speech

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 42

Collaborate using web-based resources.

Definition

Collaboration should include using resources that allow teams to share, edit, and publish files.

FBLA Competitive Events and Activities Areas

Business Etiquette

Career Exploration

Community Service Project (Middle Level)

Critical Thinking

Digital Citizenship

Elevator Speech

Introduction to Computer Science & Coding

Multimedia & Website Development
Task Number 43

Format documents.

Definition

Formatting should include using application-based templates or

- setting tabs
- setting margins
- setting alignment
- setting spacing
- using styles (e.g., block, modified block)
- changing fonts and font sizes
- setting borders and shading
- inserting page numbers, headers, and footers
- inserting bulleted and numbered lists.

Formatting should also include using basic business (e.g., American Psychological Association [APA], Chicago Manual of Style) and Modern Language Association (MLA) style guides.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Elevator Speech

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 44

Format tables, graphs, and charts.

Definition

Formatting should include

- defining the characteristics of tables, graphs, and charts
- specifying the number and width of table rows and columns
- specifying table borders, headers, and styles.
Task Number 45

Create a spreadsheet.

Definition

Creation should include

- selecting a spreadsheet application
- entering data
- creating formulas
- saving the spreadsheet.

Task Number 46

Format addresses on labels and envelopes.

Definition

Formatting should include

- following U.S. Postal Service (USPS) requirements for addresses
- using software to prepare and print addresses on labels and envelopes according to USPS requirements
- arranging the return address and recipient address on an envelope.
Task Number 47

Incorporate graphic elements in documents.

Definition

Incorporation should include

- using Insert functions to place clip art, symbols, pictures, or other graphics in various types of documents
- selecting charts and graphs to enhance documents
- locating and retrieving public domain images from the Internet
- manipulating (e.g., sizing, cropping, moving, layering, wrapping text) the graphics after they are inserted in documents
- changing the file size of documents with graphics.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Critical Thinking

Multimedia & Website Development

Task Number 48

Create a multimedia presentation.

Definition

Creation includes

- choosing a theme and layout
- inserting slides and content (e.g., embedded video, sound, images, charts)
- formatting transitions and animations.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)
Task Number 49

Troubleshoot computer input/output problems.

Definition

Troubleshooting should include cable hookups, power sources, peripheral devices and

- saving work and rebooting
- identifying the problem and potential causes (i.e., what has changed) using online resources
- checking port connections and power sources
- notifying the instructor when a problem persists.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Digital Citizenship

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 50

Use verbal-input applications.

Definition

Use includes employing speech-to-text or voice-recognition tools to understand and carry out spoken commands and to

- dictate/create
- receive and interpret dictation
- navigate
- edit and proofread
- translate
- delete
- save.
Using Digital Tools and Resources

Task Number 51

Digitize content.

Definition

Digitization may include using available technology such as

- scanners/copiers
- cameras
- applications
- scannable images (e.g., QR codes, Instagram Nametag).

Digitization may also include

- capturing images
- editing images (e.g., manipulating image size and resolution)
- saving in various file formats (e.g., PDF, PNG, JPG, GIF)
- inserting images into other applications.

FBLA Competitive Events and Activities Areas

Digital Citizenship

Elevator Speech

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 52

Identify the components and functions of a digital input device.
Definition

Identification should include components such as

- cables
- ports
- power supply
- memory card
- viewer/liquid crystal display (LCD) screen
- touch screen
- keyboard
- mouse
- microphone
- scanner
- digital camera
- joystick
- flash drive
- audio components (e.g., speaker cables).

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Critical Thinking

Digital Citizenship

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 53

Create digital images.

Definition

Creation could include demonstration of the principles of photography and use of the digital device’s features and tools, including

- setting the exposure
- framing the subject(s)
- focusing
- editing
- importing
- saving
- sharing
- printing
- inserting images into other applications.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Digital Citizenship

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 54

Create digital art.

Definition

Creation should include digital drawing tools and apps for

- drawing
- editing
- formatting
- importing
- saving
- sharing
- printing
- inserting images into other applications.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Digital Citizenship

Introduction to Computer Science & Coding

Multimedia & Website Development
Task Number 55
Create a video.

Definition

Creation could include

- identifying the video device’s components and feature functions
- capturing footage and shots (e.g., extreme close-ups, close-ups, medium shots, wide shots)
- editing videos using the digital device, camera, and/or video-editing software
- creating a video from digital media
- saving videos in a variety of formats.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Digital Citizenship

Task Number 56

Insert video into an application.

Definition

Insertion should include importing an edited video to a variety of applications and exporting video to a variety of distribution or storage formats (e.g., presentation software).

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Multimedia & Website Development
Task Number 57

Create audio narrations or voice-overs.

Definition

Creation should include

- using grammatically correct language, including vocabulary appropriate for the topic, audience, and purpose
- using on-screen or off-screen supporting visuals
- recording and saving sound as a digital file.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Multimedia & Website Development

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Exploring Mobile Devices, Cloud Computing, and the Internet of Things (IoT)

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Task Number 58

Use applications on standard mobile devices.

Definition

Use includes

- notes/tasks (e.g., Google Keep, OneNote)
  - create
  - edit
  - prioritize
  - manage reminders
  - search
o delete
- calendars/notifications/alarms
  o create
  o edit
  o prioritize and label
  o manage reminders
  o organize events
  o search
  o delete
- email/messaging
  o customize settings
  o compose, reply, forward
  o use copy (cc) and blind copy (bcc)
  o attach files
  o save/retrieve
  o search
  o manage
  o prioritize and label
  o delete
- contacts
  o create
  o edit
  o manage
  o label
  o search
  o delete.

FBLA Competitive Events and Activities Areas

Critical Thinking

Digital Citizenship

Introduction to Computer Science & Coding

Multimedia & Website Development

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**Task Number 59**

**Explain cloud computing.**

**Definition**
Explanation includes

- defining *cloud computing*
- discussing advantages of cloud computing
- discussing safe use of cloud computing
- identifying various cloud-computing platforms.

**FBLA Competitive Events and Activities Areas**

**Community Service Project (Middle Level)**

**Critical Thinking**

**Digital Citizenship**

**Elevator Speech**

**Introduction to Computer Science & Coding**

**Multimedia & Website Development**

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**Task Number 60**

**Research developments in cloud computing.**

**Definition**

Research should include using periodicals, the Internet, and other resources to examine and explain the following:

- What is cloud computing?
- What is the purpose of cloud computing?
- Who is using cloud computing?
- What are the advantages and disadvantages of using cloud computing?
- What are some applications that use cloud computing?
- What are some privacy concerns when using cloud computing?

**FBLA Competitive Events and Activities Areas**

**Community Service Project (Middle Level)**

**Critical Thinking**
Task Number 61

Save data to the cloud, so it will be accessible from a personal computer (PC), file-hosting service, smartphone, and other devices.

Definition

Saving should include

- uploading data from a device to the cloud (e.g., Google Drive, Dropbox)
- sharing and changing privacy settings
- identifying privacy setting concerns and consequences
- explaining the permanence of data published on the web
- converting file formats
- accessing and downloading files from the cloud.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Digital Citizenship

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 62

Research developments in IoT.

Definition
Research should include

- definition of IoT
- uses of industrial and consumer IoT (e.g., automation, transportation, health care)
- discussion of privacy and security issues.

Research should incorporate resources, including industry publications, that examine and explain the following questions:

- What is IoT?
- What is the purpose of IoT?
- Who is using IoT?
- What are the advantages and disadvantages of IoT?
- What are applications that use IoT?
- What are security and privacy concerns related to IoT?

FBLA Competitive Events and Activities Areas

Critical Thinking

Digital Citizenship

Introduction to Computer Science & Coding

Multimedia & Website Development

Applying Digital Literacy Skills

Task Number 63

Explain principles of digital citizenship.

Definition

Explanation of principles of digital citizenship should include

- Internet etiquette (or netiquette)
- email etiquette
• social media guidelines
• text and messaging etiquette
• resource citation
• digital footprint.

FBLA Competitive Events and Activities Areas

Critical Thinking

Digital Citizenship

Elevator Speech

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 64

Use search strategies on the Internet.

Definition

Use should include

• defining terms
  o plagiarism
  o citation
  o acceptable use
  o copyright
  o digital footprint
  o bias
• searching for and evaluating information
• searching safely
• identifying the origin of information
• determining the veracity of sources
• identifying bias
• citing resources.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)
Task Number 65

Navigate the Internet.

Definition

Navigation should include

- entering URLs
- locating websites
- finding a news story
- checking the weather
- conducting searches
- accessing information (e.g., research material, news)
- opening, closing, and managing multiple windows or tabs
- adding bookmarks or shortcuts.

FBLA Competitive Events and Activities Areas

Community Service Project (Middle Level)

Critical Thinking

Digital Citizenship

Elevator Speech

Introduction to Computer Science & Coding

Multimedia & Website Development
Task Number 66

Manage an online account.

Definition

Management includes controlling

- settings
- privacy
- passwords
- preferences (e.g., notifications).

FBLA Competitive Events and Activities Areas

Business Etiquette

Career Exploration

Community Service Project (Middle Level)

Critical Thinking

Digital Citizenship

Elevator Speech

Introduction to Computer Science & Coding

Multimedia & Website Development

Preparing for a Career

Task Number 67

Research the use of digital technology in careers within the sixteen career clusters.
Definition

Research should identify careers in the following clusters:

- Agriculture, Food & Natural Resources
- Architecture & Construction
- Arts, Audio-visual (A/V) Technology & Communications
- Business Management & Administration
- Education & Training
- Finance
- Government & Public Administration
- Health Science
- Hospitality & Tourism
- Human Services
- Information Technology
- Law, Public Safety, Corrections & Security
- Manufacturing
- Marketing
- Science, Technology, Engineering & Mathematics
- Transportation, Distribution & Logistics

FBLA Competitive Events and Activities Areas

Business Etiquette

Career Exploration

Critical Thinking

Digital Citizenship

Introduction to Computer Science & Coding

Multimedia & Website Development

Task Number 68

Identify personal interests, aptitudes, and attitudes found in successful students and professionals.

Definition
Identification could include

- making a self-inventory of interests, aptitudes, and attitudes, using a personality sorter
- using a credible personality model, such as the Myers-Briggs typological approach
- identifying characteristics of a successful employee.

FBLA Competitive Events and Activities Areas

Business Etiquette

Career Exploration

Critical Thinking

Task Number 69

Develop a career plan.

Definition

Development of a plan should include identifying a specific job and researching

- job opportunities and stability
- labor market data
- knowledge and skill requirements.

FBLA Competitive Events and Activities Areas

Business Etiquette

Career Exploration

Critical Thinking

Elevator Speech

Task Number 70
Identify the importance of social media in the job-acquisition process.

Definition

Identification should include the use of social media to identify job availability and to screen individuals for colleges, businesses, and scholarships. Identification should include privacy concerns and the permanence of data when using social media and the Internet.

FBLA Competitive Events and Activities Areas

Business Etiquette
Career Exploration
Critical Thinking
Digital Citizenship
Multimedia & Website Development

Task Number 71

Develop a digital portfolio.

Definition

Development may include the compilation of electronic files representative of a student's work and activities.

FBLA Competitive Events and Activities Areas

Business Etiquette
Career Exploration
Critical Thinking
Digital Citizenship
Task Number 72

Identify potential employment barriers for nontraditional groups and ways to overcome the barriers.

Process/Skill Questions

Identification of barriers should include discrimination in hiring or promoting practices due to

- gender
- ethnicity
- age.

Identification of ways to overcome barriers should include

- scholarships
- job-training programs
- mentorships
- minority-assistance programs.

FBLA Competitive Events and Activities Areas

Business Etiquette

Career Exploration

Critical Thinking

Digital Citizenship

SOL Correlation by Task

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</tr>
<tr>
<td>38</td>
<td>Demonstrate booting, accessing, and exiting an OS and applications.</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Manipulate data, software, and OS.</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Use file-management techniques to manipulate and organize folders and files.</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Edit copy.</td>
<td>English: 6.8, 7.8, 8.8</td>
</tr>
<tr>
<td>42</td>
<td>Collaborate using web-based resources.</td>
<td>English: 6.1, 6.2, 6.3, 6.8, 7.1, 7.2, 7.3, 7.8, 8.2, 8.3, 8.8</td>
</tr>
<tr>
<td>43</td>
<td>Format documents.</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Format tables, graphs, and charts.</td>
<td>English: 6.4, 7.4, 8.4</td>
</tr>
<tr>
<td>45</td>
<td>Create a spreadsheet.</td>
<td>Mathematics: 7.11, 8.14</td>
</tr>
<tr>
<td>46</td>
<td>Format addresses on labels and envelopes.</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Create a multimedia presentation.</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Troubleshoot computer input/output problems.</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Use verbal-input applications.</td>
<td>English: 6.3, 7.3, 8.3</td>
</tr>
<tr>
<td>51</td>
<td>Digitize content.</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Identify the components and functions of a digital input device.</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>Create digital images.</td>
<td>English: 6.8, 7.8, 8.8</td>
</tr>
<tr>
<td>54</td>
<td>Create digital art.</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Create a video.</td>
<td>English: 6.6, 6.8, 7.6, 7.8, 8.6, 8.8</td>
</tr>
<tr>
<td>56</td>
<td>Insert video into an application.</td>
<td>English: 6.8, 7.8, 8.8</td>
</tr>
<tr>
<td>57</td>
<td>Create audio narrations or voice-overs.</td>
<td>English: 6.8, 7.8, 8.8</td>
</tr>
<tr>
<td>58</td>
<td>Use applications on standard mobile devices.</td>
<td>English: 6.7, 6.8, 7.7, 7.8, 8.7, 8.8</td>
</tr>
<tr>
<td>59</td>
<td>Explain cloud computing.</td>
<td>English: 6.1, 6.4, 6.6, 7.1, 7.4, 7.6, 8.1, 8.4, 8.6</td>
</tr>
<tr>
<td>60</td>
<td>Research developments in cloud computing.</td>
<td>English: 6.9, 7.9, 8.9</td>
</tr>
<tr>
<td>61</td>
<td>Save data to the cloud, so it will be accessible from a personal computer (PC), file-hosting service, smartphone, and other devices.</td>
<td>English: 6.6, 7.6, 8.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>History and Social Science: WG.17</td>
</tr>
<tr>
<td>62</td>
<td>Research developments in IoT.</td>
<td>English: 6.4, 6.9, 7.4, 7.9, 8.4, 8.9</td>
</tr>
<tr>
<td>63</td>
<td>Explain principles of digital citizenship.</td>
<td>English: 6.6, 7.6, 8.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>History and Social Science: WG.17</td>
</tr>
</tbody>
</table>
|   | Use search strategies on the Internet. | English: 6.4, 6.6, 6.9, 7.4, 7.6, 7.9, 8.4, 8.6, 8.9  
  History and Social Science: WG.17 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>Navigate the Internet.</td>
<td>History and Social Science: WG.17</td>
</tr>
<tr>
<td>66</td>
<td>Manage an online account.</td>
<td></td>
</tr>
</tbody>
</table>
| 67 | Research the use of digital technology in careers within the sixteen career clusters. | English: 6.9, 7.9, 8.9  
  History and Social Science: WG.17 |
| 68 | Identify personal interests, aptitudes, and attitudes found in successful students and professionals. | English: 6.6, 7.6, 8.6 |
| 69 | Develop a career plan.              | English: 6.6, 6.9, 7.6, 7.9, 8.6, 8.9  
  English: 6.6, 6.9, 7.6, 7.9, 8.6, 8.9 |
| 70 | Identify the importance of social media in the job-acquisition process. | English: 6.3, 6.6, 7.3, 7.6, 8.3, 8.6 |
| 71 | Develop a digital portfolio.        | English: 6.1, 7.1, 8.2                                          |
| 72 | Identify potential employment barriers for nontraditional groups and ways to overcome the barriers. | English: 6.6, 7.6, 8.6 |

**Teacher Resources**

**Instructional Scenarios**

The following instructional scenarios provide classroom activities to support the major concepts included in Digital Technology Foundations.

- **Cloud Computing**  
  Duty/Concept Area: Exploring Mobile Devices, Cloud Computing, and the Internet of Things (IoT)  
  Students are tasked with organizing a work conference to discuss a company’s recent successes and future plans.

- **What is Your Digital Footprint?**  
  Duty/Concept Area: Applying Digital Literacy Skills  
  Students will make a record of their online activities using their own digital footprint, calculate their media usage, and reflect on their findings.

- **Internet Etiquette**  
  Duty/Concept Area: Applying Digital Literacy Skills  
  Students are tasked with creating Internet etiquette guidelines for a family.
• **Work Smarter Not Harder with Internet of Things (IoT)**  
  Duty/Concept Area: Exploring the Digital Technologies Mix  
  Students help local businesses understand the importance of IoT by presenting ways a business and/or customers can benefit from using smart technologies.

• **Managing Files for Organization and Productivity**  
  Duty/Concept Area: Practicing Digital Skills  
  Students are tasked with organizing and creating a file management system.

• **Creating a Menu Using Digital Art**  
  Duty/Concept Area: Exploring Mobile Devices, Cloud Computing, and the Internet of Things (IoT)  
  Students are tasked with creating a menu that will be published online and printed for distribution throughout the school.

• **Minute to Sell It**  
  Duty/Concept Area: Using Digital Tools and Resources  
  Students are tasked with creating a video for the hottest new technology of the year and advertise it.

• **Multimedia Presentation: Workplace Readiness Skills**  
  Duty/Concept Area: Practicing Digital Skills  
  Students are tasked with creating a multimedia presentation displaying the Workplace Readiness Skills, including images, definitions, and an example to show comprehension.

• **Develop and Organize a Digital Portfolio**  
  Duty/Concept Areas: Using Digital Tools and Resources  
  Practicing Digital Skills  
  Preparing for a Career  
  Students are tasked with creating a digital portfolio providing examples of work to post online and share with a future employer (teacher).

• **Create a Video**  
  Duty/Concept Areas: Using Digital Tools and Resources  
  Practicing Digital Skills  
  Preparing for a Career  
  Students are tasked with introducing your new department head to the rest of the employees in this business scenario. The introduction will be recorded and placed on the department website for all employees to access.

• **Who Wants to Start a YouTube Channel?**  
  Duty/Concept Areas: Preparing for a Career  
  Students are tasked with creating a digital portfolio with a résumé, a LinkedIn profile, school transcripts, teacher or employer recommendations, at least two samples of video work, and a letter of interest.
Cyber Security and Cyber Forensics Infusion Units

Cyber Security and Cyber Forensics Infusion Units (CYBR) were designed to be infused with designated CTE courses to help students in those programs achieve additional, focused, validated tasks/competencies in personal and professional cyber security skills. These units are not mandatory, and, as such, the tasks/competencies are marked as "optional," to be taught at the instructor's discretion.

Entrepreneurship Infusion Units

Entrepreneurship Infusion Units may be used to help students achieve additional, focused competencies and enhance the validated tasks/competencies related to identifying and starting a new business venture. Because the unit is a complement to certain designated courses and is not mandatory, all tasks/competencies are marked “optional.”
Appendix: Credentials and Career Cluster Information

Industry Credentials: Only apply to 36-week courses

- College and Work Readiness Assessment (CWRA+)
- Workplace Readiness Skills for the Commonwealth Examination

### Career Cluster: Arts, Audio/Video Technology and Communications

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printing Technology</td>
<td>Desktop Publisher</td>
</tr>
<tr>
<td></td>
<td>Job Printer</td>
</tr>
<tr>
<td></td>
<td>Prepress Technician</td>
</tr>
<tr>
<td></td>
<td>Press Operator</td>
</tr>
<tr>
<td></td>
<td>Production, Planning, Expediting Clerk</td>
</tr>
</tbody>
</table>

### Career Cluster: Business Management and Administration

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Support</td>
<td>Administrative Assistant</td>
</tr>
<tr>
<td></td>
<td>Computer Operator</td>
</tr>
<tr>
<td></td>
<td>Court Reporter</td>
</tr>
<tr>
<td></td>
<td>Data Entry Specialist</td>
</tr>
<tr>
<td></td>
<td>Medical Transcriptionist</td>
</tr>
<tr>
<td></td>
<td>Receptionist</td>
</tr>
<tr>
<td>Business Information Management</td>
<td>Administrative Assistant</td>
</tr>
<tr>
<td>General Management</td>
<td>Administrative Assistant</td>
</tr>
<tr>
<td>Human Resources Management</td>
<td>Administrative Assistant</td>
</tr>
</tbody>
</table>

### Career Cluster: Information Technology

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Support and Services</td>
<td>Administrative Assistant</td>
</tr>
<tr>
<td></td>
<td>Computer Support Specialist</td>
</tr>
<tr>
<td></td>
<td>Customer Service Representative</td>
</tr>
<tr>
<td></td>
<td>Maintenance Technician</td>
</tr>
<tr>
<td></td>
<td>Technical Writer</td>
</tr>
</tbody>
</table>
### Career Cluster: Science, Technology, Engineering and Mathematics

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering and Technology</td>
<td>Computer Hardware Engineer</td>
</tr>
<tr>
<td></td>
<td>Computer Programmer</td>
</tr>
<tr>
<td></td>
<td>Computer Software Engineer</td>
</tr>
<tr>
<td></td>
<td>Network and Computer Systems Administrator</td>
</tr>
<tr>
<td></td>
<td>Network Systems and Data Communication Analyst</td>
</tr>
<tr>
<td></td>
<td>Production, Planning, Expediting Clerk</td>
</tr>
<tr>
<td></td>
<td>Project Manager</td>
</tr>
<tr>
<td></td>
<td>Stockroom, Warehouse, or Storage Yard Stock Clerk</td>
</tr>
<tr>
<td></td>
<td>Technical Writer</td>
</tr>
<tr>
<td></td>
<td>Telecommunications Specialist</td>
</tr>
<tr>
<td></td>
<td>Transportation Manager</td>
</tr>
</tbody>
</table>