

1. Basic Computer and Mobile

Operates and performs fundamental tasks on devices to support learning at home, school, and in the workplace. Optimizes operating system functionality and effectively uses and troubleshoots the hardware and software of computers and mobile devices. Possesses the digital resilience necessary to learn and utilize emerging technologies, and has effective strategies for transferring skills and knowledge among various devices and applications.

| # | Competency | Tasks |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | Optimizes Operating System Functionality Identifies an operating system and optimizes its functionality for life, work, and education purposes. Pursues effective strategies for transferring skills and knowledge to new devices and for troubleshooting problems. | □ Level 1: Identifies an operating system and its parts. Additionally, recognizes common security threats and privacy settings. (BCM 1.1.1) □ Level 2: Uses and manages an operating system and troubleshoots basic issues, seeking assistance as needed. (BCM 1.1.2) □ Level 3: Optimizes OS functionality and has effective strategies for transferring skills and knowledge to new devices. Troubleshoots OS problems with little to no assistance. (BCM 1.1.3) |
| 1.2 | Manages Hardware Locates and distinguishes the physical components of various devices, and optimizes their functionality for life, work, and education purposes. Troubleshoots problems and adapts when new technology is available. | □ Level 1: Distinguishes different types of devices and utilizes common controls with detailed instructions. (BCM 1.2.1) □ Level 2: Navigates and manages known device hardware (e.g., monitor, printer, keyboard, mouse, ports, touchscreen, etc.), seeking assistance as needed. (BCM 1.2.2) □ Level 3: Develops strategies for optimizing hardware functionality, troubleshoots problems with little to no assistance, and adapts to rapidly changing technology. (BCM 1.2.3) |
| 1.3 | Adapts to New Software Navigates and utilizes common functions of unknown software for life, work, and education purposes, troubleshoots problems, and adapts when new technology is available. | □ Level 1: Understand the purpose of software, defines terms common to applications, and utilizes common controls with step-by-step instructions. (BCM 1.3.1) □ Level 2: Navigates and utilizes common functions of known software. Applies these skills to similar applications, seeking assistance as needed. (BCM 1.3.2) □ Level 3: Utilizes new software, troubleshoots problems, and adapts to rapidly changing technology. (BCM 1.3.3) |



| # | Competency | Tasks |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.4 | Uses Mobile Devices for Learning - Navigates, utilizes, and optimizes the functionality of mobile devices for life, work, and education. Demonstrates effective strategies for transferring skills and knowledge to new devices, troubleshoots problems, and adapts when new technology is available. | □ Level 1: Recognizes mobile devices and utilizes common controls with detailed instructions. (BCM 1.4.1) □ Level 2: Navigates and utilizes common functions of known mobile devices. Applies these skills to other mobile devices, seeking assistance as needed. (BCM 1.4.2) □ Level 3: Uses mobile devices, optimizes functionality, troubleshoots problems, and adapts to rapidly changing technology. (BCM 1.4.3) |



2. Internet

Explains the concept of the internet and how to connect to and use its components, accesses the internet using a web browser, navigates the internet through an understanding of webpage layout, and exchanges information online.

| # | Competency | Tasks |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | Accesses and Navigates the Internet Safely Connects to public and private networks to access and navigate the internet. Uses the various features of a web browser and employs preventative strategies against internet security threats. | □ Level 1: Identifies and explains the purpose of the common navigational features of the web browser that are installed on a personal device, identifies ways to connect to the Internet, and connects a familiar device by following step-by-step directions. (INT 2.1.1) □ Level 2: Uses a familiar web browser to access and navigate the internet. Transfers knowledge of a familiar browser to use an unfamiliar one, connects familiar and unfamiliar devices to the internet, and attempts to troubleshoot connectivity issues, seeking support as needed. (INT 2.1.2) □ Level 3: Accesses and navigates the internet using any available browser, adjusts browser settings to increase security and personalization, connects familiar and unfamiliar devices to the internet, and successfully troubleshoots connectivity issues. (INT 2.1.3) |
| 2.2 | Recognizes and Uses Website Type and Organization Uses knowledge of internet and website organization to recognize the type, purpose, layout, and access level of different sites and pages. Uses this information to select sites and information relevant to goals. | □ Level 1: Recognizes and identifies the type, purpose, and access level of some websites. Follows step-by-step directions to select a site relevant to personal goals. (INT 2.2.1) □ Level 2: Understands the type, purpose, and access level of a variety of websites and selects websites that will help to accomplish personal goals. (INT 2.2.2) □ Level 3: Recognizes the type, purpose, and access level of any website and selects websites that help to achieve goals. (INT 2.2.3) |
| 2.3 | Creates and Manages Usernames and Passwords Creates login credentials and manages passwords securely. | □ Level 1: Follows step-by-step directions to enter log-in credentials for websites. (INT 2.3.1) □ Level 2: Creates a username and password to enter a closed-access site. (INT 2.3.2) □ Level 3: Creates, manages, and resets usernames and passwords. (INT 2.3.3) |



| # | Competency | Tasks |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.4 | Manages and Shares Files Manages files on a personal device and transfers files from one device to another, recognizing situations in which it may not be safe to do so. | □ Level 1: Follows step-by-step directions to manage files on a personal device and uploads and downloads files from one device to another. (INT 2.4.1) □ Level 2: Manages the files on a personal device with increasing independence, transfers files from one device to another, and explains when a file is or is not safe to transfer. (INT 2.4.2) □ Level 3: Manage files on unfamiliar devices, uses an efficient means to transfer files between devices, and quickly identifies potentially unsafe files. (INT 2.4.3) |
| 2.5 | Practices Healthy Screen Time Habits Practices healthy screen-time habits. | □ Level 1: Describes personal concept of healthy screen-time habits. (INT 2.5.1) □ Level 2: Sets personal screen-time goals. (INT 2.5.2) □ Level 3: Monitors how effectively they are meeting personal screen-time goals and adjusts habits when necessary. (INT 2.5.3) |



3. Communication

Uses technology to safely communicate with others, recognizing the impact on digital footprints. Selects from numerous digital communication tools and platforms to meet personal and professional goals, adapting to evolving technology as needed.

| # | Competency | Tasks |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1 | Sends and Manages Email Uses email for professional and personal communication, avoiding spam and phishing schemes. Uses tools and features of an email platform to organize and save communications and includes non-text features like attachments and images when appropriate. | □ Level 1: Completes the process for creating an email account, composes, sends, and replies to emails, seeking assistance as needed. (C 3.1.1) □ Level 2: Composes and sends email messages, adds features to email communications, and demonstrates the use of tools to organize email communications. (C 3.1.2) □ Level 3: Optimizes email account settings and assesses the terms/limits established by an email provider. Demonstrates awareness of the security issues with email communication and the digital footprint that it creates. (C 3.1.3) |
| 3.2 | Engages with Social Media Uses social media to create, share, and view content. Monitors digital footprint and manages accounts and activity to maintain desired levels of privacy. | □ Level 1: Identifies and describes the steps for creating an account on a social media platform and identifies the content shared by others. (C 3.2.1) □ Level 2: Identifies and describes the active use of a social media platform to share/exchange content with others and examines perceptions of posted content. (C 3.2.2) □ Level 3: Accesses and adjusts the settings associated with managing social media accounts. Assesses the privacy concerns and digital footprint created by social media content and formulates a plan to make necessary changes. (C 3.2.3) |
| 3.3 | Selects Communication Tools Uses other internet-based communication tools effectively. Strategically chooses tools for different purposes and contexts. | □ Level 1: Explores and identifies internet communication tools. (C 3.3.1) □ Level 2: Demonstrates use of internet tools to communicate personally or professionally. (C 3.3.2) □ Level 3: Explores the settings in communication tools and adjusts them according to need. (C 3.3.3) |



4. Information Literacy

Finds information online that assists in accomplishing personal and professional goals and evaluates information and shares it digitally in an ethical, responsible manner.

| # | Competency | Tasks |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1 | Compares Online Search Results with Objectives Solves problems by identifying the type of information needed and by describing how it will help to accomplish goals. | □ Level 1: Identifies a problem and selects from explicitly provided online sources of information that could be used to solve it. (IL 4.1.1) □ Level 2: Identifies a problem to be solved, draws upon existing knowledge to select the online sources of information needed, and outlines the steps to reach the goal. (IL 4.1.2) □ Level 3: Identifies a problem to be solved, selects information from a wide variety of online sources, and establishes an organized approach to reaching goals, reflecting upon the process and making adjustments as necessary. (IL 4.1.3) |
| 4.2 | Optimizes Online Search Strategies Uses effective search strategies to find information online that will help to achieve goals. | □ Level 1: Follows explicit directions to complete a search for information relevant to goals. (IL 4.2.1) □ Level 2: Uses basic search strategies with increasing independence to complete a search for information relevant to goals. (IL 4.2.2) □ Level 3: Uses advanced search strategies to find information relevant to goals. (IL 4.2.3) |
| 4.3 | Assesses Reliability of Search Results Locates reliable online sources of information by evaluating and comparing multiple sources. | □ Level 1: Describes the qualities of reliable online information and identifies these qualities in information found or provided, seeking assistance as needed. (IL 4.3.1) □ Level 2: Describes the qualities of reliable and unreliable online information, discriminating between sources with increasing independence. (IL 4.3.2) □ Level 3: Assesses the reliability of a wide variety of online information sources, using multiple points of reference to assess the reliability of any given piece of information. (IL 4.3.3) |
| 4.4 | Demonstrates Expanded Topic Knowledge Uses online information to expand content knowledge, makes claims that are supported with evidence, or creates a unique artifact. | □ Level 1: Describes how at least one piece of information found online expands understanding of a topic, helps make a claim that is supported with evidence, or aids in the creation of a unique artifact. (IL 4.4.1) □ Level 2: Employs two to three pieces of information found online to expand content knowledge, make a claim that is supported with evidence, or create a unique artifact. (IL 4.4.2) □ Level 3: Employs several pieces of information they have found online, drawing from a variety of sources to expand their understanding of a topic, make a claim that is supported with evidence, or create a unique artifact. (IL 4.4.3) |



| # | Competency | Tasks |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.5 | Complies with Intellectual Property Controls Shows a respect for intellectual property by accurately citing sources, avoiding plagiarism, and obeying copyright law. | □ Level 1: Identifies the owner of a piece of information found online. (IL 4.5.1) □ Level 2: Identifies and gives credit to the owner of a piece of information found online. (IL 4.5.2) □ Level 3: Identifies and gives credit for a piece of information found online, in addition to modifying or repurposing it (where licensing allows). (IL 4.5.3) |
| 4.6 | Shares Online Content Appropriately Shares online information or novel creations demonstrating comprehension of the purpose, audience, and potential impact of what is being shared. | □ Level 1: Explains the potential impact of digitally sharing a predefined piece of information with a predefined audience. (IL 4.6.1) □ Level 2: Digitally shares a piece of information or novel creation with a predefined or self-defined audience, using cause and effect to predict the potential impact of what is being shared. (IL 4.6.2) □ Level 3: Identifies potential digital audiences for a piece of information or novel creation, demonstrating the ability to limit with whom the information or creation is shared. (IL 4.6.3) |



References

Chartered Institute of Library and Information Professionals (CILIP) (2012). *Information Literacy Skills*. <u>Infolit.org.uk</u>. <u>https://infolit.org.uk/wp-content/uploads/2021/09/information_literacy_skills.pdf</u>

Colorado Department of Labor, Employment's Office of Future of Work (OFOW), and Colorado Center on Law and Policy (CCLP) (2021). *Digital Equity Framework*.

https://docs.google.com/spreadsheets/d/1J9Md E2OrC6-FKzPqVTGpgLAR1ltClPrJv zlO-NPmQ/edit#gid=0

International Society for Technology in Education. (2021, Nov. 22). *ISTE Standards: Educators*. Iste.org. https://www.iste.org/standards/iste-standards-for-teachers

International Society for Technology in Education. (2021, Nov. 22). *ISTE Standards: Students*. Iste.org. https://www.iste.org/standards/iste-standards-for-students

Maryland Department of Labor, Adult Education (n.d.). Digital Literacy Framework for Adult Learners.

Northstar Digital Literacy (2021). Standards for Essential Computer Skills (V2.0). Literacy Minnesota.

Pennsylvania Department of Education (2002, Jan. 5). *Academic Standards for Science and Technology*. stateboard.education.pa.gov.

https://www.stateboard.education.pa.gov/Documents/Regulations%20and%20Statements/State%20Academic%20Standards/ScienceandTechnologyStandards.pdf

Wedlake, S., Lothian, K., Keyes, D., & Coward, C. (2019). *Digital skill sets for diverse users: A comparison framework for curriculum and competencies*. Seattle Digital Equity Initiative.