North Dakota Computer Science and Cybersecurity

# 7th Grade

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| **Networks & Internet: Networks link computers and devices locally and around the world allowing people to access and communicate information.** 7.NI | 1 | **Model how data is sent from one computer to another across networks.** 7.NI.1 |
| **Hardware & Software: Devices, hardware, and software work together as a system to accomplish tasks.** 7.HS | 1 | **Compare and contrast hardware and/or software options to complete a task.** 7.HS.1 |
| | 2 | **Continued growth.** 7.HS.2 |
| | 3 | **Organize, store, and retrieve digital information with minimal guidance.** 7.HS.3 |
| | 4 | **Describe threats to technology systems. (CYSEC)** 7.HS.4 |
| | 5 | **Explain how security measures protect technology systems. (CYSEC)** 7.HS.5 |
| **Troubleshooting: Strategies for solving technology system problems.** 7.T | 1 | **Continued growth.** 7.T.1 |
| **Problem Solving & Algorithms: Strategies for understanding and solving problems.** 7.PSA | 1 | **Modify and test an algorithm to solve a problem.** 7.PSA.1 |
| | 2 | **Continued growth.** 7.PSA.2 |
| **Data Creation & Analysis: Data can be collected, used, and presented with computing devices or digital tools.** 7.DCA | 1 | **Represent data, in more than one way, to defend your claim.** 7.DCA.1 |
| **Development & Design: Design processes to create new, useful, and** | 1 | **Modify programs that utilize combinations of loops, conditionals, and the manipulation of variables representing different data types.** 7.DD.1 |

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| **imaginative solutions to solve problems.** 7.DD | |
| **Access: Effective search strategies can locate information for intellectual or creative pursuits.** 7.A | **1** Continued growth. 7.A.1 |
| **Information sources can be evaluated for accuracy, currency, appropriateness, and purpose.** 7.E | **1** Independently, evaluate information and its sources using student selected processes and strategies. 7.E.1 |
| **Create: It is important to both consume and produce information to be digitally literate.** 7.C | **1** Continued growth. 7.C.1 |
| **Intellectual Property: Respect for the rights and obligations of using and sharing intellectual property.** 7.IP | **1** With minimal guidance, properly use copyrighted works, works in the creative commons, and works in the public domain. 7.IP.1<br>**2** Continued growth. 7.IP.2<br>**3** Identify strategies to avoid personal works and the works of others from being pirated and plagiarized. (CYSEC) 7.IP.3 |
| **Impacts of Computing: Past, present, and possible future impact of technology on society.** 7.IC | **1** Compare and contrast the impacts of technology, including bias and accessibility. 7.IC.1 |
| **Social Interactions: Technology facilitates collaboration with others.** 7.SI | **1** Use collaborative technology to gather and share information. 7.SI.1<br>**2** Continued growth. 7.SI.2 |
| **Safety & Ethics: There are both positive and negative impacts in social and ethical behaviors for using technology.** 7.SE | **1** Continued growth. 7.SE.1<br>**2** Identify a variety of methods to maintain digital privacy and security. (CYSEC) 7.SE.2<br>**3** Continued growth. 7.SE.3<br>**4** Describe how to respond to threats to personal cybersecurity. (CYSEC) 7.SE.4 |

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| **Responsible Use: Respect and dignity in virtual and physical communities.** 7.RU | **1** **Describe different forms of cyberbullying and the effects on all parties involved.** 7.RU.1 |
| | **2** **Identify strategies to prevent and stop cyberbullying.** 7.RU.2 |
| | **3** **Continued growth.** 7.RU.3 |
| | **4** **Understand the purpose of and comply with Acceptable Use Policies.** 7.RU.4 |
| **Digital Identity: The responsibilities and opportunities that come with living, learning, and working in an interconnected digital world.** 7.DI | **1** **Evaluate how digital identity can impact a person now and in the future.** 7.DI.1 |