

# 9th Grade

**Networks & Internet:**  
Networks link computers and devices locally and around the world allowing people to access and communicate information **9.NI**

- 1 Describe the issues that impact network functionality (e.g., bandwidth, load, delay, topology). **9.NI.1****
- 2 Understand the implications of accessing publicly available Internet connections. (CYSEC) **9.NI.2****

**Hardware & Software:**  
Devices, hardware, and software work together as a system to accomplish tasks. **9.HS**

- 1 Compare and contrast appropriate device/hardware/software to complete a task. **9.HS.1****
- 2 Define software and security patches/update. (CYSEC) **9.HS.2****
- 3 Explain why a backup is necessary. (CYSEC) **9.HS.3****

**Troubleshooting:**  
Strategies for solving technology system problems. **9.T**

- 1 Describe basic hardware and software problems using appropriate and accurate terminology. **9.T.1****

**Problem Solving & Algorithms:** Strategies for understanding and solving problems **9.PSA**

- 1 Identify, recognize, and use an algorithm to solve a complex problem across disciplines. **9.PSA.1****

**Data Creation & Analysis:** Data can be collected, used, and presented with computing devices or digital tools. **9.DCA**

- 1 Collect and analyze complex data. **9.DCA.1****

**Access:** Effective searches strategies can locate information for intellectual or creative pursuits. **9.A**

- 1 Plan and employ effective research strategies to locate information. **9.A.1****

**Evaluate: Information sources can be evaluated for accuracy, currency, appropriateness, and purpose.** 9.E

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**1 Evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.** 9.E.1

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**Create: It is important to both consume and produce information to be digitally literate.** 9.C

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**1 Create original works or responsibly repurpose or remix digital resources into new creations to communicate an idea.** 9.C.1

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**Intellectual Property: Respect for the rights and obligations of using and sharing intellectual property.** 9.IP

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**1 Properly use copyrighted works, works in the creative commons, and works in the public domain.** 9.IP.1

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**2 Cite sources in a standard format to ethically reference the intellectual property of others.** 9.IP.2

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**3 Engage in positive, safe, legal, and ethical behavior when using technology.** 9.IP.3

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**Impacts of Computing: Past, present, and possible future impact of technology on society.** 9.IC

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**1 Evaluate how technology has impacted the workforce positively and negatively.** 9.IC.1

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**Social Interactions: Technology facilitates collaboration with others.** 9.SI

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**1 Identify how technology has affected our means of communication.** 9.SI.1

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**Safety & Ethics: There are both positive and negative impacts in social and ethical behaviors for using technology.** 9.SE

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**1 Recognize the effects sharing information online can have on others' privacy. (CYSEC)** 9.SE.1

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**2 Know how to modify account settings to protect privacy and security. (CYSEC)** 9.SE.2

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**3 Recognize that data collection technology can be used to track navigation online. (CYSEC)** 9.SE.3

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**4 Describe ways to prevent identity theft. (CYSEC)** 9.SE.4

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**Responsible Use: Respect and dignity in virtual and physical communities.** 9.RU

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**1 Apply cyberbullying prevention strategies.** 9.RU.1

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**2 Apply safe and ethical behaviors to personal electronic communication and interaction. (CYSEC)** 9.RU.2

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**3 Continued growth.** 9.RU.3

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**4 Understand the purpose of and comply with Acceptable Use Policies.** 9.RU.4

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**Digital Identity: The responsibilities and opportunities that come with living, learning, and working in an interconnected digital world.** 9.DI

**1 Manage a digital identity and be aware of the permanence of actions in the digital world. (CYSEC)** 9.DI.1