

11th Grade

Networks & Internet:
Networks link computers and devices locally and around the world allowing people to access and communicate information **11.NI**

- 1 Compare and contrast different network connection types (e.g., Wi-Fi, mobile data, ethernet). **11.NI.1****
- 2 Understand the global impact of networkable devices. **11.NI.2****

Hardware & Software:
Devices, hardware, and software work together as a system to accomplish tasks. **11.HS**

- 1 Continued growth. **11.HS.1****
- 2 Identify and choose hardware and software to help protect a system. (CYSEC) **11.HS.2****
- 3 Identify different options for redundancy (e.g., cloud storage, external, duplicate devices). (CYSEC) **11.HS.3****

Troubleshooting:
Strategies for solving technology system problems. **11.T**

- 1 Continued growth. **11.T.1****

Problem Solving & Algorithms: Strategies for understanding and solving problems **11.PSA**

- 1 Demonstrate ways a given algorithm applies to problems across disciplines and explain the benefits and drawbacks of choices made. **11.PSA.1****

Data Creation & Analysis: Data can be collected, used, and presented with computing devices or digital tools. **11.DCA**

- 1 Represent complex data in multiple ways to defend a student-generated claim. **11.DCA.1****

Access: Effective searches strategies can locate information for intellectual or creative pursuits. **11.A**

- 1 Devise new search strategies based on information gaps and new understanding. **11.A.1****

Evaluate: Information sources can be evaluated for accuracy, currency, appropriateness, and purpose. 11.E

- 1 Use accurate, credible, and relevant sources of information, media, data, or other resources showing different perspectives. 11.E.1

Create: It is important to both consume and produce information to be digitally literate. 11.C.1

- 1 Publish or present content that customizes the message and medium for their intended audiences to communicate their idea. 11.C.1

Intellectual Property: Respect for the rights and obligations of using and sharing intellectual property. 11.IP

- 1 Explain the beneficial and harmful effects that intellectual property laws can have on innovation, creativity, and collaboration. 11.IP.1
- 2 Continued growth. 11.IP.2
- 3 Evaluate the social and economic implications of piracy and plagiarism in the context of safety, law, or ethics. 11.IP.3

Impacts of Computing: Past, present, and possible future impact of technology on society. 11.IC

- 1 Explain how computing may change cultural aspects of society. 11.IC.1

Social Interactions: Technology facilitates collaboration with others. 11.SI

- 1 Investigate ways to maximize the benefits and minimize the harmful effects technology can have on society. 11.SI.1

Safety & Ethics: There are both positive and negative impacts in social and ethical behaviors for using technology. 11.SE

- 1 Understand encryption and how it is used to protect data. (CYSEC) 11.SE.1
- 2 Explain the privacy concerns related to the collection and generation of data through automated processes. (CYSEC) 11.SE.2
- 3 Continued Growth 11.SE.3
- 4 Develop a plan to recover from an incident that was tied to unauthorized access. (CYSEC) 11.SE.4

Responsible Use: Respect and dignity in virtual and physical communities. 11.RU

- 1 Continued growth. 11.RU.1
- 2 Continued growth. 11.RU.2
- 3 Continued growth. 11.RU.3

4 Understand the purpose of and comply with Acceptable Use Policies. 11.RU.4

Digital Identity: The responsibilities and opportunities that come with living, learning, and working in an interconnected digital world. 11.DI

1 Continued growth. 11.DI.1