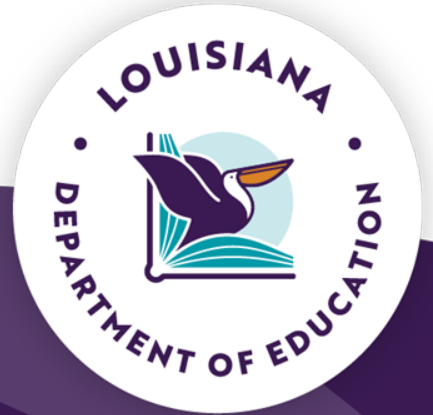


K-12 Computer Science Standards Writing Steering Committee

Claiborne Building | Thomas Jefferson Room 1-136 | 1201 North Third Street, Baton Rouge, LA 70802



June 20, 2024

Call to Order



Roll Call



Agenda



Agenda

- I. Call to Order
- II. Roll Call
- III. Approval of minutes from the June 7, 2024 meeting
- IV. Consideration of a summary report regarding grade band workgroup recommendations for computer science content standards on Concept 2 Networks and the Internet
- V. Consideration of an update on the work of the computer science grade band work groups



Approval of the June 7, 2024 Meeting Minutes



**Consideration of a summary report
regarding the grade band workgroup
recommendations for computer science
content standards on
Concept 2 Networks and the
Internet**



Overarching Themes

- Cybersecurity instruction begins in grade K.
- Students must know how data is shared, transmitted, and stored safely on networks.
- The protection of data on computer networks and the Internet must be taught from both the personal and industry perspectives.
- Additional glossary terms were needed.



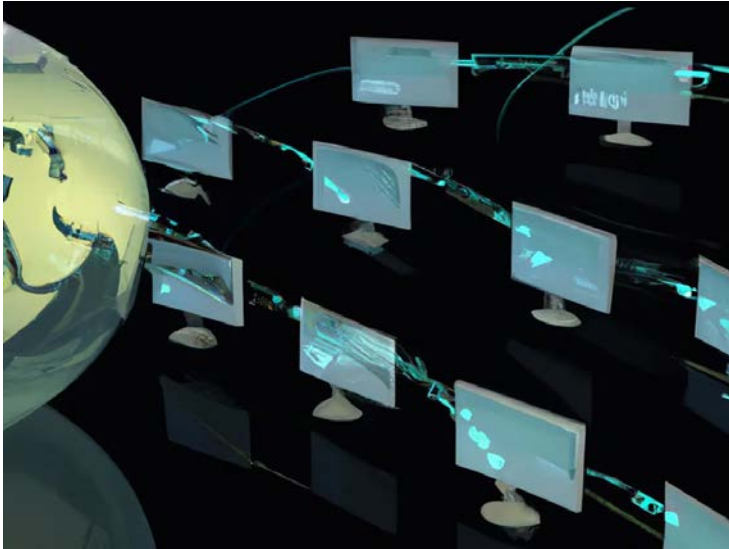
Core Concept 2 Networks and the Internet

Overview:

Computing systems typically do not operate in isolation. **Networks** connect computers to share information and resources and are an increasingly integral part of **computer** and **data science**. **Networks** have developed critical communication systems that drive our economy and career sectors. The increased levels of connectivity brought about by the **Internet** can provide fast and secure communication that facilitates innovations.



Progression of Concept 2



Hardware and Network Communication

1A. Evaluate a network's scalability, reliability, and appropriateness by describing the relationship between routers, switches, devices, topology, and addressing (MAC, IP, Subnet, Gateway).

1B. Compare and contrast levels of interactions between an application's software, system's software, and hardware layers.

1C. Illustrate how to trace data through a network model, explaining the interactions that occur throughout it.

1D. Describe and evaluate the Internet as a digital public infrastructure (DPI) from its highest level to the private service provider level.

Cybersecurity

2A. Interpret and analyze mechanisms through which viruses, malware, and other cyber attacks can impact hardware, software, and sensitive data.

2B. Recommend security measures to address factors that create tradeoffs between the usability and security of a computing system (e.g., efficiency, feasibility, and legal impacts).

Hardware and Network Communication

1A. Analyze the various structures and functions of a network.

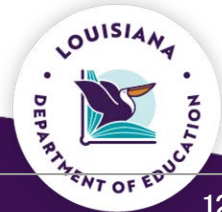
1B. Identify and differentiate the rules (protocols) utilized in data sharing across networks.

Cybersecurity

2A. Explain how physical and digital security practices and measures proactively address threats to users, data, and devices within and across networks.

2B. Analyze threats and vulnerabilities to information security for individuals and organizations.

Grades 6-8



Hardware and Network Communication

1. Explain how networks connect computers to other computing systems and the Internet.

Cybersecurity

2A. Describe personally identifiable information (PII) and identify practices for when and where it is appropriate to share PII.

2B. Identify tools to maintain data security when using networks.

Sub-Concept A. Hardware and Network Communication



Computing systems communicate with each other across **networks** to share information. In early grades, students learn that computers connect them to different people, places, and the things that make up the world. Students in early grades learn how **data** is shared, when data should be shared, and the importance of responsible **Internet** use. As students progress into the middle and upper grades, they better understand information-sharing options, data-sharing practices, and how **computing systems** work together.

Sub-Concept B. Cybersecurity

Transmitting **data** and information securely across networks requires that users understand the appropriate protections. In early grades, students learn about their personal data, data security practices, and how to know when and with whom they share data virtually. As students progress through middle and high school, they will learn about the design considerations industries must make to protect data, the more complex ways to protect data transfers across computing networks, and a deeper awareness of their personal digital footprint.



Recess



Consideration of an update on the work of the computer science grade band work groups



Schedule of K-12 Computer Science Standards Writing Committee Meetings

Date and Time	Meeting and Location
May 7, 2024, 9 a.m. - 4 p.m.	Meeting 1 - Claiborne Building, Baton Rouge
June 7, 2024, 9 a.m. - 4 p.m.	Meeting 2 - Claiborne Building, Baton Rouge
June 20, 2024, 9 a.m. - 4 p.m.	Meeting 3 - Claiborne Building, Baton Rouge
July 11, 2024, 9 a.m. - 4 p.m.	Meeting 4 - Claiborne Building, Baton Rouge
July 30, 2024, 9 a.m. - 4 p.m.	Meeting 5 - Claiborne Building, Baton Rouge
August 13, 2024, 9 a.m. - 4 p.m.	Meeting 6 - Claiborne Building, Baton Rouge
August 27, 2024, 9 a.m. - 4 p.m.	Meeting 7 - Claiborne Building, Baton Rouge

Please contact STEM@la.gov

