

2023 Instructional Material Summer Review Institute

Review Team Appraisal of Title  
Grades K-12 Computer Science

This appraisal form is provided for use by educators responsible for the selection of instructional materials for implementation with districts and charter schools across New Mexico to meet the need of their student populations.

[NMPED Adoption Information](#)

<b>Text Title</b>	Network Security Fundamentals 1a/1b one year student license	<b>Publisher</b>	eDynamic Holdings LP
<b>SE ISBN</b>	9798986044347	<b>TE ISBN</b>	
<b>SW ISBN</b>		<b>Grade Level/Content</b>	11-12 Computer Science

**Core Instructional Material Designation** (Core instructional material (CIM) is the comprehensive print and/or digital educational material, including basal material, which constitutes the necessary instructional components of a full academic course of study in those subjects for which the department has adopted content standards and benchmarks.)

**Recommended**  
(90% and above)

**Recommended with Reservations** (80-89%)

**Not Recommended and Not Adopted**  
(below 80%)

**Total Score** - The final score for the materials is averaged between the team of reviewers.

Average Score

43%

**Cultural and Linguistic Relevance Recognition** - Materials are reviewed for relevant criteria pertaining to the support for teachers and students in the material regarding cultural relevance and the inclusion of a culturally responsive lens. Those materials receiving a score of 85% or above on the CLR portion of the review are recognized as culturally and linguistically relevant.

**CLR Recognized**

Average Score

21%

**FOCUS AREA 3 CULTURAL AND LINGUISTIC PERSPECTIVES AND RESPONSIVENESS:**

Instructional materials represent a variety of cultural and linguistic perspectives and highlight diversity in culture and language through multiple perspectives.

Statements of appraisal and supporting evidence:

Materials do not provide any integration, consideration, reflection, or analysis of the impact or contributions of different cultural perspectives, languages, or cultures. There are limited sections for students to reflect on personal preference in regard to ergonomics.

**Computer Science Standards Review** - Materials are reviewed for alignment with the state adopted content standards, benchmarks and performance standards.

Average Score

45%

#### OVERALL ALIGNMENT

**Materials align with the computer science standards overall.**

*Statements of appraisal and supporting evidence:*

Materials are partially aligned to the content standards. Materials cover data analysis and collection, basic security and target hardening, and surveillance of different social and ethnic groups. Materials describe the OSI model. There is no evidence in the materials of AI integration, the use, implementation and adaptation of algorithms, or the use of recursion and cycling, and limited instances of life cycle of certificates and software development.

#### COMPUTING SYSTEMS

**Materials align to the computing systems standards for computer science.**

*Statements of appraisal and supporting evidence:*

Standards are partially met with upgrading and modifying operating systems. The OSI model includes individual level components. There is no evidence provided for students to examine components or categorize the individual roles of OSI software.

#### NETWORKS AND THE INTERNET

**Materials align to the networks and internet standards for computer science.**

*Statements of appraisal and supporting evidence:*

There is evidence in the materials in regard to networks and the internet. Students examine network security measures, web addressing, and components. There is no evidence of material dealing with bandwidth, load, delay, student description and discussion of bandwidth limitations and issues, or comparisons of ways software developers are responsible for protecting devices.

#### DATA AND ANALYSIS

**Materials align to the data and analysis standards for computer science.**

*Statements of appraisal and supporting evidence:*

Material provides a TedTalk on cyber warfare/ethics facing the large collection and use of consumer data, examination and documentation of audit logs, and information regarding the use of hash generation to verify data. The use of data analysis tools is only covered and not actually utilized by students, and there is no opportunity to formulate or test hypotheses.

#### ALGORITHMS AND PROGRAMMING

**Materials align to the algorithms and programming standards for computer science.**

*Statements of appraisal and supporting evidence:*

Materials examine the use of encryption to protect and transmit data, although there is evidence of the use of algorithms to solve mathematical functions. Materials contain no evidence of data structures and their uses and only briefly cover the use of artificial intelligence. There is no evidence about large-scale computational problems.

#### IMPACTS OF COMPUTING

**Materials align to the impacts of computing standards for computer science.**

*Statements of appraisal and supporting evidence:*

Cyberbullying is discussed at length along with how to report incidents. The materials cover surveillance in the context of large-scale data collection and on which populations. Data breaches are reviewed. There is no evidence found on large scale computational problems or predictions about the future of computing without looking at the history of computing. There is also no evidence found on the laws and regulations.

**Computer Science Content Review**- Materials are reviewed against relevant criteria pertaining to the support for teachers and students in the specific content area reviewed.

Average Score

32%

**FOCUS AREA 1 COMPUTATIONAL CONCEPTS**

**Instructional materials provide strategies to develop students' skills that are crucial to understanding computational concepts, including sequencing, looping, parallelism, events, conditionals, operators, and data.**

*Statements of appraisal and supporting evidence:*

Students are asked to compare signature detection mechanisms, but there is no evidence of them designing or implementing algorithms. Students are taught about forensic data collection but do not create computational models. Students compare internet protocols but they do not discuss the differences between mathematical and computational algorithms.

**FOCUS AREA 2 COMPUTATIONAL PRACTICES**

**Instructional materials provide strategies to develop students' skills that are crucial to understanding computational practices, including experimenting and iterating; testing and debugging; and reusing and remixing.**

*Statements of appraisal and supporting evidence:*

Students are asked to research steganography and identify a type they would use. This involves some prior knowledge and no prototypes are created that use algorithms. No test cases are conducted to test programs or modify algorithms to improve on their abilities.

**FOCUS AREA 3 COMPUTATIONAL PERSPECTIVES**

**Instructional materials provide strategies to develop students' skills that are crucial to understanding computational perspectives, including expressing, connecting, and questioning.**

*Statements of appraisal and supporting evidence:*

Students are tasked with explaining an SQL injection attack and creating a brochure about social engineering. There is no evidence found in the materials of the creation of computational artifacts or innovation.

**FOCUS AREA 4 ACCESSIBILITY AND EQUITY**

*Statements of appraisal and supporting evidence:*

Materials are presented in a consistent format; however, there are no modified assignments, alternative assessments, varying lexile levels, or other instructional supports or modifications aside from basic recommendations for differentiation.

**FOCUS AREA 5 TEACHER SUPPORT**

*Statements of appraisal and supporting evidence:*

Materials provide support to teachers in the form of pacing guides, teaching guides, basic required materials, prepared and various forms of formative and summative assessments, vocabulary terms, and a guide to possible answers. There is no evidence in the materials of cross-referencing with the standards.

**All Content Review** - Materials are reviewed against relevant criteria pertaining to the support for teachers and students in the material regarding the progression of the standards, pacing, assessment, individual learners, and cultural and linguistic relevance and responsiveness.

CLR Recognition Average Score	Average Score
21%	42%

**FOCUS AREA 1 RESOURCES AND SUPPORTS FOR TEACHERS AND STUDENTS**  
**Instructional materials provide teacher resources to support planning and supports for all students.**  
*Statements of appraisal and supporting evidence:*

Pacing guides outline the general amount of time for each lesson, chapter, and unit. However, no reference to the standards is given in any of these lessons or activities. All material is provided in a digital format, including assessments and lessons. Materials include vocabulary, a syllabus, and bibliographies, but there is no evidence of linguistic supports for EL and diverse student populations.

**FOCUS AREA 2 ASSESSMENT**  
**Instructional materials offer teachers a variety of assessment resources and tools to collect ongoing data about student progress related to the standards.**  
*Statements of appraisal and supporting evidence:*

The materials provide a variety of formative and summative assessments but not in all strands of the standards. There is no evidence of standards being clearly defined. There is no evidence of alternative assessments for ELs, CLD, advanced, or special needs students.

**FOCUS AREA 3 CULTURAL AND LINGUISTIC PERSPECTIVES AND RESPONSIVENESS**  
**Instructional materials represent a variety of cultural and linguistic perspectives and highlight diversity in culture and language through multiple perspectives.**  
*Statements of appraisal and supporting evidence:*

Materials do not provide any integration, consideration, reflection, or analysis of the impact or contributions of different cultural perspectives, languages, or cultures. There are limited sections for students to reflect on personal preference in regard to ergonomics.

**Reviewers' Professional Summary** - These materials are reviewed by Level II and Level III educators from across New Mexico. The reviewers have brought their knowledge, experience and expertise into the review of these materials. They offer here their individual summary of the material as a whole.

Reviewer #: 82

*Background and experience:*

Reviewer 82 is a Level II teacher with eleven years teaching experience in multiple content areas, including computer science. Reviewer also has ten years experience working as a computer technician for the federal government.

*Professional summary of material:*

Materials are provided in a consistent format that is easy to follow and navigate. However, the materials do not meet the majority of standards. Text provides information on data collection and use, operating system software and auditing data, and the assessments provided cover a variety of material utilizing different digital and online tools. Notably missing are course standards in the material, the integration of different cultures and their contributions, and the ability of students to analyze their own life experiences to interact with the information.

Reviewer #: 83

*Background and experience:*

Reviewer 83 has been teaching in New Mexico for fifteen years. I am a Level II teacher with endorsements in TESOL and mathematics. I have been teaching AP Computer Science Principles for two years.

*Professional summary of material:*

The instructional material is easily accessible, provides teacher support such as pacing guides, lists of vocabulary terms, and suggested differentiation strategies. There is no evidence of cross-referencing the standards. There are no alternative assessments for special needs students, gifted students, ELs, or CLD students. There is evidence of material on operating system software and hashing, but no evidence of material on implementing an artificial intelligence algorithm. Students evaluate the impact of equity in a global society and predict how computational innovations might affect our future. There is no evidence of adapting or evaluating algorithms or recursion. There is no evidence students will construct solutions to problems using student-created components. There is no evidence students plan or develop programs using a software life cycle process. There is no evidence of integrating different cultural perspectives, languages, or cultures.

Reviewer #: 84

*Background and experience:*

Reviewer 84 has been teaching in New Mexico for fifteen years. He is a Level III teacher and is endorsed in the Sciences and TESOL. He has been teaching computer science courses since 2015 including CCNA, Python, and AP CSP.

*Professional summary of material:*

The curriculum discusses the deployment, operating software, and the use of the OSI Model when describing the roles of each layer of the internet. The lessons describe the nature of networks and the precautions that need to be taken to protect them. There is no evidence of bandwidth and related concepts. No information about AI or the use and refinement of algorithms can be found in the materials. They discuss the use of certificates in security, but not in relation to algorithms. Students are asked to make an informational pamphlet to inform others about social engineering, but there is no evidence about emerging technologies.