

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](#)

Text Title	Introduction to Networking 1a/1b one year student license	Publisher	eDynamic Holdings LP
SE ISBN	9781737161554	TE ISBN	
SW ISBN		Grade Level/Content	9-10 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

55%

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

17%

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:

There is no representation of cultural and linguistic perspectives and the materials do not highlight diversity in culture or language. A few sections provide students the opportunity to reflect on ethics, values, and ergonomic choices, but the materials do not highlight diversity.

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

Average Score

59%

OVERALL ALIGNMENT

Materials align with the computer science standards overall.

Statements of appraisal and supporting evidence:

The selected resources provide information and activities regarding networks, their integration, routers, scaling networks, protection against data breaches, cyber security recommendations, as well as the ethics and legal considerations of a digital society. The material features discussions and critical thinking portions and projects to gauge and assess student achievement and comprehension. Resources include the selection and use of data protection features and software, as well as their limitations and necessary considerations. However, there is no opportunity for collaboration. The resources do not provide opportunities for the use of prototypes, algorithms solving computational problems, or iterations.

COMPUTING SYSTEMS

Materials align to the computing systems standards for computer science.

Statements of appraisal and supporting evidence:

In regard to computing systems, the materials did provide resources for most standards, including making use of abstraction, policy and procedure design, system integration and components as well as troubleshooting strategies. Students are required to explain and compare levels of abstraction and develop guidelines for troubleshooting. Information provided is clear, concise and easy to follow. Student project includes the use of designing a variety of hybrid networks to meet customer needs, the formulation of password policies and procedures to safeguard data, and the issues facing data security.

NETWORKS AND THE INTERNET

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

Statements of appraisal and supporting evidence:

The selected resources provide information and activities regarding networks, their integration, routers, scaling, protection against data breaches, cyber security recommendations, as well as the ethics and legal considerations of a digital society. The text features discussions and critical thinking portions and projects to gauge and assess student achievement and comprehension. Resources include the selection and use of data protection features and software, as well as their limitations and necessary considerations.

DATA AND ANALYSIS

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

Statements of appraisal and supporting evidence:

The material covers data representations, visualizations using software tools, computational models and the different formats in which data is presented (binary, hexadecimal, et. al). The use of software in order to store, sort and catalog data into easy to view and understand mediums is featured throughout classroom activities. There are also guided activities, discussions, and sections that provide cross-curricular integration with ELA in the use of writing professionally and formally.

ALGORITHMS AND PROGRAMMING

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

Statements of appraisal and supporting evidence:

We didn't find evidence for the use of prototypes, algorithms solving computational problems, and iterations. The most notable use of prototyping/testing activity is based off of selecting, justifying, and calculating network speed/bandwidth utilizing different forms of transmission mediums. There is no framework provided for student evaluation of artifacts or opportunities for collaboration. The use of algorithms is utilized in the sense of a human solving a problem based off of reading, and not the use of any student created artifact using computation or functions.

IMPACTS OF COMPUTING

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

Statements of appraisal and supporting evidence:

The material does not provide opportunities for the use of prototypes, algorithms solving computational problems, and iterations. There is no framework provided for student evaluation of artifacts or opportunities for collaboration. The use of algorithms is strictly in the sense of human-based analysis brought about through flowcharts and guided reading, and not the use of any student-produced computational formula, mathematical function, or application. In text use of algorithms included a student-designed troubleshooting document in order to standardize IT responses.

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

39%

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:

The text does not provide opportunities for sequencing, looping, parallelism, and conditionals. There were some opportunities for data modeling and analysis (e.g. converting binary to decimal numbers), but data activities are lacking in depth and scope for the grades that this material is intended for. The text also provides some use of integrated vocabulary and the use of mathematical concepts directly relating to computer science.

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:

The text does not provide opportunities for sequencing, looping, parallelism, and conditionals. There are some opportunities for data modeling and analysis (e.g. converting binary to decimal numbers), but data activities are lacking in depth and scope for the grades that this material is intended for. The text also provides some use of integrated vocabulary and the use of mathematical concepts directly relating to computer science.

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:

This area is covered consistently, in depth, and in a manner that allows the transition by students from practice to assessment utilizing created computational models, creating artifacts, and the use of social media (tik-tok). For example, students are required to make a password, responsible use, and remote access policies as a network administrator. These computational artifacts are for a practical purpose. The potential impacts to culture and society are covered and provided opportunities for discussion and dialogue.

FOCUS AREA 4 ACCESSIBILITY AND EQUITY

Statements of appraisal and supporting evidence:

Aside from a few EL strategies, there are no modifications or accommodations made for EL, special needs, or gifted students. There are no opportunities for these student populations to comprehend grade-level content.

FOCUS AREA 5 TEACHER SUPPORT

Statements of appraisal and supporting evidence:

Teacher supports are provided with opportunities to fine-tune instruction according to learning style, school type, and setting. There is access to information, materials, and some resources, but no mention of libraries or required hardware. For example, introductory materials include a list of software and hardware requirements but no discussion of libraries or tools can be found.

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
17%	57%

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:

The instructional materials provide easily accessible lessons and pacing guides, but there is no cross-referencing the standards. There are opportunities where students use digital learning, interactive digital components and digital assessments. In the teaching guides, there is a section for differentiation suggestions for below-level, above-level and ELs. However, there are no alternate assessments for differentiation.

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:

Assessments are present in both formative and summative formats in addition to the use of critical thinking and discussion questions. There are no alternative assessments or accommodations for differentiation of non-traditional learners. Assessments include opportunities for design, implementation and justification of hybrid networks, hardware and software options, as well as overall design and features in accordance with user requirements.

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:

There is no representation of cultural and linguistic perspectives and the materials do not highlight diversity in culture or language. A few sections provide students the opportunity to reflect on ethics, values, and ergonomic choices, but the materials do not highlight diversity.

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 two teacher, with a Master's degree and eleven years teaching experience at the high school level. Reviewer is licensed in numerous content areas including computer science and business and also has ten years working for the military as a computer technician.

Professional summary of material:

The resources included in this review, although written clearly and concisely, fail to meet the majority of the standards required for this course. While the information is presented in a straightforward manner, there is no support for SpEd students, ELs, or those that are performing below grade level. Every activity and assignment is consistent without providing alternative methods for assessment, differentiation, or instructional mode.

Reviewer #: 83

Background and experience:

Reviewer 83 is a level two teacher with fifteen years teaching experience at middle and high school levels, and is pursuing graduate work in Educational Leadership. They have endorsements in TESOL and Mathematics. They have taught AP Computer Science Principles for two years.

Professional summary of material:

The material provided is easily accessible, clearly written, and strong in some areas. It does not provide materials in the area of computational concepts, accessibility and equity, and cultural and linguistic perspectives. There are many formative and summative assessment opportunities, critical thinking questions, and discussions within the material. However, differentiating resources for ELs, students below or above grade level, and special needs as well as gifted students are not present.

Reviewer #: 84

Background and experience:

Reviewer 84 is a level three teacher with 15 years teaching experience in secondary education. Reviewer holds an M.Ed. and has taught Computer Science for seven years, including AP CSP, Cisco CCNA and Python. I hold endorsements in Sciences, TESOL and Modern & Classical Literature and Languages.

Professional summary of material:

Curriculum meet most of the standards regarding networking but fall short in areas of computational concepts and cultural and linguistic perspectives. Resources for EL, special needs, and gifted students are generally limited or missing. Materials for assessment (both formative and summative) and review are present, but often limited in flexibility and differentiation for non-general education populations. Computational concepts are covered in depth, allowing students to practice the concepts by coding on their own.