

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>	Introduction to Programming 1a/1b one year student license	<b>Publisher</b>	eDynamic Holdings LP
<b>SE ISBN</b>	9781737161660	<b>TE ISBN</b>	
<b>SW ISBN</b>		<b>Grade Level/Content</b>	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

64%

**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:

Materials provide few resources that utilize multiple perspectives, diversity, or language.

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

Average Score

68%

#### OVERALL ALIGNMENT

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

*Statements of appraisal and supporting evidence:*

Materials partially meet required computer science standards. Students are provided opportunities to program, code, assess, and improve upon programs and applications. There is inconsistent evidence of opportunities for collaboration between students and independent, unguided practice or exploration with materials.

#### COMPUTING SYSTEMS

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

*Statements of appraisal and supporting evidence:*

Materials meet or partially meet the standards for computing systems. The materials provide an explanation of abstraction in regard to programming and the internet as a whole. There is no evidence of collaboration where students are able to compare levels of abstraction in system software. There are opportunities to develop protocols, troubleshooting, and programming interfaces in course activities.

#### NETWORKS AND THE INTERNET

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

*Statements of appraisal and supporting evidence:*

Materials partially meet the requirements for networks and the internet. Students are provided with an opportunity to evaluate the internet but not provided opportunities to examine individual sections and functions of the internet. Sections on network security are from an informational standpoint only, without any evidence of student-selected security measures and tradeoffs.

#### DATA AND ANALYSIS

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

*Statements of appraisal and supporting evidence:*

Materials cover data and analysis with opportunities to view and interact with data in a variety of formats, utilizing different programs and functions. There are also chances for student-produced data visualization protocols as well as a student-produced Python programs.

#### ALGORITHMS AND PROGRAMMING

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

*Statements of appraisal and supporting evidence:*

The materials partially cover the algorithms and programming standards through opportunities to discuss and utilize algorithms and input/output programs. There is inconsistent evidence of opportunities for students to examine, implement, and justify control structures, create prototypes, or to use lists to simplify solutions.

#### IMPACTS OF COMPUTING

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

*Statements of appraisal and supporting evidence:*

The materials partially meet the impacts of computing required standards due to students not being provided an opportunity to examine their own feelings, beliefs, and opinions regarding the use of computing in the current and modern world utilizing emergent and existing technology. There is inconsistent evidence of opportunities for collaboration. There is no evidence that students will integrate any other cultures, job fields, or experiences.

**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

68%

#### **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:*

Computational concepts provided within the instructional materials ask students to execute a program using selection, sequencing, and iteration in their algorithm. There is an activity where students design a random number generator utilizing Python in accordance with programming mathematical functions, as well as testing and refining the program. There is no evidence for the use of recursion or application of the use of rolling back an application or program to a stable version.

#### **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 create algorithms and prototypes to solve computational problems, such as converting decimal numbers into binary, but there is no evidence that students leverage their knowledge and personal interests. Students are asked to create an algorithm that works more efficiently than the one it is originally written in. There is no evidence within the materials that students evaluate algorithms for efficiency, correctness, and clarity using test cases.

#### **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:*

The computational perspectives within the materials is provided in formats that allow students to create artifacts using a word processor to sort, organize, and refine a collaborative app via Python. Additional coursework includes an in-depth research paper on computational innovation.

#### **FOCUS AREA 4 ACCESSIBILITY AND EQUITY**

*Statements of appraisal and supporting evidence:*

There is no evidence within the materials of opportunities to support ELs, diverse learners, culturally diverse students or special need students. There is also no evidence of opportunities to help students comprehend grade-level and complex concepts.

#### **FOCUS AREA 5 TEACHER SUPPORT**

*Statements of appraisal and supporting evidence:*

Teacher support is provided in the teacher resources section of the materials. The required materials are for students. There is no evidence of libraries within the materials as well as inconsistent evidence referencing needing a computer.

**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%	39%

**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:*

Resources and supports for teachers and students partially meet within the materials by the inclusion of easily accessible digital materials. There is no evidence of referencing standards in the materials provided. There is an in-depth pacing guide that is provided.

**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:*

All assessments in the provided materials are in a digital format. There are several opportunities for digital learning presented in audiovisual formats or interactive lessons. Materials include vocabulary lists, a syllabus, and a bibliography for students to make meaning from text. Teachers are provided supplemental materials such as teaching guides that help with instruction. Assessments are provided without differentiation, accomodation for ELs, or consideration of relevant cultures and experiences.

**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 provide few resources that utilize multiple perspectives, diversity, or language.

**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 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. Reviewer also has ten years working for the military as a computer technician.

*Professional summary of material:*

The material is well written, easy to follow and straight-forward, but is very inconsistent in the presentation, application, and utilization of information. There is little variety that occurred from lesson to lesson. Material proceeds in a predictable manner, but may not provide the voice and choice or experiential options that many students look forward to, particularly in an elective class. There is extremely limited inclusion of different perspectives, languages, cultures, beliefs, experiences, or personal choice. Aside from a few suggestions for differentiation, there are no alternatively-formatted assignments or activities for students who may require modifications.

Reviewer #: 83

*Background and experience:*

Reviewer 83 is a Level II teacher with fifteen years teaching experience in secondary education and is currently pursuing an Educational Leadership Master's degree. I have taught AP Computer Science for two years. I have endorsements in TESOL and Mathematics.

*Professional summary of material:*

The material is easily accessible and offers information, lessons, and activities regarding privacy concerns, social and economic implications, troubleshooting strategies, and layers of the networks. Students are decomposing problems and creating artifacts. There are critical thinking questions, discussions, and projects along with formative and summative assessments. The resources include a pacing guide, suggested differentiation, and materials needed for students. However, there are no differentiating resources or alternate assessments for differentiating. There is no representation of cultural and linguistic perspectives or diversity.

Reviewer #: 84

*Background and experience:*

Reviewer 84 is a Level III teacher with fifteen 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 and TESOL.

*Professional summary of material:*

Instructional materials provide examples and explanation of abstraction, discussion of computer systems and networking, and the internet. There is inconsistent evidence of opportunities for student involvement in the activities and use of cooperative learning models. For instance, when students are taught what lists are, they are not required to formulate their own lists. Aspects of the impact of computing are missed when students are not asked to evaluate and conduct some of the tests, such as testing for bias and equity. Likewise, there is no evidence of accommodations for accessibility and equity. Assessments are not differentiated for ELs and special-needs students.