

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	New Mexico Computer Science Foundations (K-2)	Publisher	Coder Kids, Inc. DBA Ellipsis Education
SE ISBN		TE ISBN	2250236453902
SW ISBN		Grade Level/Content	K-2 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

82%

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

42%

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 offer instructional strategies for students on how to work cooperatively and handle frustrating tasks. Students can personalize their sprite in Scratch Jr. to reflect their backgrounds and there are several Social Emotional Learning opportunities in the lesson plans that provide guidance to teachers on how to navigate class discussions so that all students feel welcomed and supported. Materials include resources that discuss representations of people and their contributions (e.g. Katherine Johnson, an African American computer scientist), but with limited information. Instructional materials do not show any evidence of activities that includes information about the various groups of people who live or have lived in New Mexico. They do not contain any topic for the past and present cultures of New Mexicans.

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

Average Score

87%

OVERALL ALIGNMENT

Materials align with the computer science standards overall.

Statements of appraisal and supporting evidence:

Overall, materials generally align with the computer science standards. Students use Scratch Jr. to develop sequencing and looping programs while providing clarity of standards assessed. Students intentionally practice analysis of debugging programs and decomposing problems into precise sequences. Materials provide strategies on how to support students who face frustration as well as several Social Emotional Learning opportunities. Digital learning is also supported with several unplugged activities and games. However, there is no evidence found for students to connect their culture and personal experiences to the content.

COMPUTING SYSTEMS

Materials align to the computing systems standards for computer science.

Statements of appraisal and supporting evidence:

Materials generally align to the computing system standards. Coding is taught in alignment with specific standards with guided practice, visuals and teamwork. Students learn about assistive technology (hearing aid, text-to-speech software, prosthetic device, voice recognition software, visual search engine, and word prediction software) and discuss the function and use of these devices to help those with disabilities. Students also identify basic hardware and software problems and describe how to troubleshoot them. There is no evidence for students acquiring accurate and appropriate terminology nor added visual supports.

NETWORKS AND THE INTERNET

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

Statements of appraisal and supporting evidence:

Materials align to the network and internet standards for computer science. Students learn computer safety: what passwords are and why we need them. Students practice creating strong and safe passwords.

DATA AND ANALYSIS

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

Statements of appraisal and supporting evidence:

Materials align to the data and analysis standards for computer science. Students are shown how to delete, modify, retrieve, and store data in Scratch Jr. Students use a concept map and make a T-chart presenting the same data in various formats. Students identify and describe patterns in data visualizations using www.accuweather.com and then make predictions about outside activities in various areas. Some lessons do not provide graphic organizers.

ALGORITHMS AND PROGRAMMING

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

Statements of appraisal and supporting evidence:

Materials align to the algorithms and programming standards for computer science. Students are given the opportunity to identify and fix bugs by breaking down steps to solve problems digitally and unplugged. Additionally, students develop a class safety plan, including the use of the Engineering Design Process drawn in a poster. After completing the plan, students code it in Scratch Jr. Daily processes are modeled as algorithms and students create and follow a sequential dance routine created by their partner. Students also use provided criteria and rubrics to understand expectations and outcomes of their work. However, materials do not elaborate on the correct usage of appropriate and accurate terminology.

IMPACTS OF COMPUTING

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

Statements of appraisal and supporting evidence:

Materials generally align to the impacts of computing standards for computer science. The material allows students to compare how people live and work with and without technology, but does not emphasize how technology impacted the lives of people before and after implementing it. Additionally, materials focus on students creating strong passwords to keep personal information private, but there is no evidence on how to logout of devices appropriately within the materials.

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

77%

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:

Materials provide ample digital and unplugged lessons for students to practice sequencing, math/logic and data. For example, students compare abilities of the brain and the computer and the benefits of both. Students design algorithms unplugged then code their characters in action. Many lessons provide both unplugged and computer-based sequencing activities. Students apply lifecycle data to their digital projects. Not all lessons have unplugged and digital alternatives.

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:

Materials provide strategies to develop skills such as testing, debugging, and experimenting. Students have many opportunities to overcome problems stemming from incomplete work, such as choosing the wrong block or poor communication between agents.

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:

Materials provide frequent guided opportunities for students to practice creating stories with accompanying visual and audio assets. For example, students use Scratch Jr. to code a story using a character, Alex. Students also pick backgrounds and visual effects to personalize their project. However, there is no evidence of students practicing co-creating and collaborating or using audio assets.

FOCUS AREA 4 ACCESSIBILITY AND EQUITY

Statements of appraisal and supporting evidence:

Materials provide supplemental guidance for teachers in supporting English Learners and gifted students. For example, many lessons offer challenge activities and alternative instruction for ELs. Materials also guide students to develop ethical behaviors online and digital citizenship. For example, there is a class activity that guides students to develop an understanding and appreciation for ethical online behaviors by playing a Kind Word game as a class.

FOCUS AREA 5 TEACHER SUPPORT

Statements of appraisal and supporting evidence:

Materials offer teacher support throughout the platform. For example, materials, software, documents, hardware, and tools are all listed in the lesson plan.

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
42%	58%

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:

Materials provide teacher resources to support planning and supports for all students. Materials provide lessons that cross reference standards addressed while providing estimated instructional time for each lesson/unit. Materials also integrate opportunities for digital learning and assessments while charts and videos are included as features that aid students in making meaning of the text. Additionally, alternative instruction and support is offered for English Learners and gifted students. However, there is no evidence of accommodations and supports for special needs students, such as text-to-speech options, English captioning, and speech recognition.

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:

Materials offer a variety of assessment resources and tools to collect ongoing data related to the standards. Most assessments are in the form of paper exit tickets, informal observations, and meeting criteria of rubrics in project form. Additionally, digital projects are formatively assessed in Scratch Jr. and summative assessments in the form of end of unit post-assessments are included. Standards are defined and communicated clearly through content and language objectives. The materials provide assessments for ELs, such as oral responses and presentations, classroom observation, and discussion with partners, but they do not give assessment alternatives for students with IEP modifications and accommodations.

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 offer instructional strategies for students on how to work cooperatively and handle frustrating tasks. Students can personalize their sprite in Scratch Jr. to reflect their backgrounds and there are several Social Emotional Learning opportunities in the lesson plans that provide guidance to teachers on how to navigate class discussions so that all students feel welcomed and supported. Materials include resources that discuss representations of people and their contributions (e.g. Katherine Johnson, an African American computer scientist), but with limited information. Instructional materials do not show any evidence of activities that includes information about the various groups of people who live or have lived in New Mexico. They do not contain any topic for the past and present cultures of New Mexicans.

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 #: 76

Background and experience:

I am a Level II teacher with four years of teaching middle school math, STEAM, and computer science. I was a member of the Community of Practice Cohort for Computer Science Integration and of the Computer Science Steering team at my school.

Professional summary of material:

I recommend with reservations Coder Kids by Ellipsis Education for New Mexico teachers and students. Materials offer many opportunities for students to work cooperatively, manage frustration, and develop critical computer science skills both digitally and unplugged. For example, students use Scratch Jr. to code algorithms involving sequences, loops, math/logic, and data. Students are provided with ample opportunities to decompose steps needed to solve a problem and debug complex programs. Students also develop understanding and appreciation for digital citizenship and responsible behavior online. While the lessons are designed for K-2 students, many lessons are quite advanced. For example, there are kindergarten lessons that include worksheets, concept maps, and graphic organizers that the typical kindergarten student would struggle to complete and there is no evidence found for alternative tools to meet students below grade level. In addition, there is no evidence found of materials engaging students in critical reflection about New Mexican cultures nor tools that relate the content area appropriately to diversity in culture and language.

Reviewer #: 77

Background and experience:

I have 23 years of teaching experience, 21 of them in NM. I hold a Master's Degree in Educational Technology and have been teaching computer science for the past 3 years in a K-8 school. I am a Level III teacher.

Professional summary of material:

Coder Kids by Ellipsis does an excellent job of providing lessons that align with most of the standards. I found the lessons creative and engaging in nature. Many of these activities provide unplugged lessons that correspond with the standards. The unplugged lessons are a great resource for all grades, but especially K-2. Another positive is that the lessons are unique in nature, that they use the software Scratch Jr, but the lessons are different than if you would search for them in Scratch Jr.'s help section. As the introduction video starts, this curriculum utilizes free software, but provides a multitude of lessons to correspond with that software and the standards. As dynamic and creative as these lessons are, I had a hard time with some of age appropriateness of the content. I could see some of the lessons being used with older students. I felt a lot of the lessons missed having pictorial supports for non or early readers, such as students in the Primary grades. As for accessibility and equity, I do think their choice of software is appropriate for teaching students about diversity and cultures since the software has editing capabilities. However, more focus on past and present cultures in New Mexico is needed. All in all, I recommend with reservations this curriculum to teach computer science.

Reviewer #: 78

Background and experience:

The reviewer is a level II teacher with 6 years of experience in teaching; two years in 7th-grade computer science and four years teaching science.

Professional summary of material:

I recommend with reservations Coder Kids materials for use in New Mexico schools. The materials contain various activities that will develop students' skills in computer science by manipulating technologies, brainstorming ideas in creating programs and identifying and solving problems. Also, the materials discuss topics that improve students' social-emotional learning through self-management, social awareness, relationship skills, and responsible decision-making. There is no evidence for elaborating on the correct usage of terms. The material needs to provide more details focusing on topics about the cultures of New Mexicans.