

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	K-5 Launch Pad	Publisher	Skill Struck
SE ISBN	9798987397701	TE ISBN	
SW ISBN		Grade Level/Content	K-5 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

80%

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

52%

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 students the opportunity to create algorithms for sprites of different ethnicities, cultures, and backgrounds. There is no evidence of discussion opportunities for students to share their cultural and linguistic backgrounds. Materials offer opportunities for students to code in two programming languages - javascript and block; however, they do not have any evidence of resources demonstrating perspectives and representations of people/groups and their contributions. Materials do not have evidence of opportunities for teachers and students to affirm the strengths of "groups that historically have been marginalized or underappreciated". There is no evidence of opportunities for students to engage in critical reflection about their own lives and societies, including the cultures of New Mexico.

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

Average Score

82%

OVERALL ALIGNMENT

Materials align with the computer science standards overall.

Statements of appraisal and supporting evidence:

Overall, materials generally align with computer science standards. For example, materials model daily processes by creating and following algorithms to complete tasks and provide loop, sequence, and algorithm activities that are block-programmed and tablet centered. The paper icon, at the top of the page, provides unplugged options. Instructional materials include digital learning, interactive digital components, and assessments that include quizzes and games or puzzles. However, there is no evidence for guided opportunities for students to co-create and co-construct designs as well as intentionally practice de-bugging skills.

COMPUTING SYSTEMS

Materials align to the computing systems standards for computer science.

Statements of appraisal and supporting evidence:

Materials generally align with the computing systems standards for computer science. For example, there are several opportunities to practice sequencing and looping through stories, puzzles, games, and design websites using HTML coding. While instructional materials provide frequent guided opportunities for students to overcome problems stemming from incomplete programs, choosing the wrong block for the job, or poor communication between agents, there is no evidence of opportunities to practice intentional analysis and debugging of inefficient programs.

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. For example, students are asked to identify multiple passwords and whether they are good/strong or bad/weak. A class activity is done for modeling how information is broken down and transmitted to its destination. Students connect their experience from the activity to how the internet transfers a website in packets one piece at a time. Material explains "what passwords are and why we use them," and "use strong passwords to protect devices and information from unauthorized access".

DATA AND ANALYSIS

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

Statements of appraisal and supporting evidence:

Materials partially align to the data and analysis standards for computer science. For example, students learn how to use a Word document to encode, store, search, and retrieve data. However, there is no evidence of opportunities for students to retrieve, copy, modify, and delete data. Students also do not have the opportunity to use data to "highlight or propose cause-and-effect relationships".

ALGORITHMS AND PROGRAMMING

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

Statements of appraisal and supporting evidence:

Materials partially align to the algorithms and programming standards for computer science. For example, students model daily processes by creating and following algorithms (sets of step-by-step instructions) to complete tasks. Additionally, there are several activities for students to practice breaking down the tasks into simpler tasks. For example, students identify the properties (color, size, style) needed and change them into their desired values. However, there is not consistent evidence that students practice de-bugging skills or give attribution when using others' ideas. There is also not consistent guidance for students on how to take on varying roles when collaborating with peers during the design process (design, implementation, and review).

IMPACTS OF COMPUTING

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

Statements of appraisal and supporting evidence:

Overall, materials align to the impact of computing standards for computer science. Students have frequent discussions about the evolution of technology and computing technologies that have changed the world. Students express how those technologies influence, and are influenced by, cultural practices. There are also many opportunities for discussions regarding accessibility; specifically, students are asked to make an app that could be accessible and useful to people with special needs or who are different in language, race, or age. There are several digital citizenship lessons and activities where students practice safety and respect online. However, there is inconsistent evidence giving students guidance on logging off of devices appropriately.

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:

Instructional materials allow students to build a variety of sequences for their sprite to solve in the platform. There is an unplugged option for students to create sequences using printables. There are several activities around sequencing, looping, and math/logic activities; however, there is no evidence of data-focused activities that direct the action of on-screen agents in virtual worlds.

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 materials give students several opportunities to use the platform to test and run programs in response to provided prompts. Students are given opportunities to experiment, test, and remix programs. However, there is inconsistent evidence for how to overcome problems with incorrect syntax and missing sensor/actuator libraries and no evidence for instructions on how to identify and fix errors in the program.

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:

Instructional materials provide students the opportunity to create a website that allows them to express their creativity by listing items students would have in their backpacks when stranded on an island. Students are able to program font, images, and text colors, but materials have no evidence of guidance for students on how to co-create characters and stories.

FOCUS AREA 4 ACCESSIBILITY AND EQUITY

Statements of appraisal and supporting evidence:

Instructional materials provide students opportunities to discuss cyberbullying and digital footprints/citizenship by practicing the 5 Ps: private, positive, permission, profile, and protect. Students learn about troubleshooting with video and interactive activities. Instructions are written and spoken for students who read below grade level, and students can interact with the lesson in multiple languages. There are options for students with special needs such as ADHD, epilepsy, cognitive disability, and blind and vision-impaired.

FOCUS AREA 5 TEACHER SUPPORT

Statements of appraisal and supporting evidence:

Instructional materials include a list of required software, hardware, and tools needed for lessons. Materials provide a list of public domain websites in lessons for students to access images and videos and specific resource examples can be found in lesson plans.

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
52%	67%

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 include clear documentation that provides estimated instructional time per lesson and per unit based on times met per month. Materials offer multiple opportunities for digital learning, interactive puzzles, and assessments in the platform. There are many lessons with videos, English captioning, text-to-speech, and options to learn in Spanish. However, no evidence is found of materials incorporating features such as glossaries, charts, footnotes, annotations, or student exemplars.

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 provide opportunities for students to be assessed formatively and summatively with oral presentations and personal/team projects. There are assessment alternatives, such as advanced challenges and lessons offered in Spanish, but there is no evidence of assessment alternatives for culturally and linguistically diverse students and special needs students. Finally, the materials do not clearly define which standards are being assessed.

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 students the opportunity to create algorithms for sprites of different ethnicities, cultures, and backgrounds. There is no evidence of discussion opportunities for students to share their cultural and linguistic backgrounds. Materials offer opportunities for students to code in two programming languages - javascript and block; however, they do not have any evidence of resources demonstrating perspectives and representations of people/groups and their contributions. Materials do not have evidence of opportunities for teachers and students to affirm the strengths of "groups that historically have been marginalized or underappreciated". There is no evidence of opportunities for students to engage in critical reflection about their own lives and societies, including the cultures of New Mexico.

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 experience teaching middle school math, STEAM, and computer science. I was a member of the Computer Science Integration Community of Practice and the Computer Science steering team at my school.

Professional summary of material:

I partially recommend the Skill Struck curriculum for use in New Mexico public schools. The Skill Struck platform is digital, easy to navigate, inclusive of students with varying needs and abilities, and includes plenty of options for unplugged activities. This program has very thorough lessons on computing systems, algorithms, digital citizenship, and understanding the impact of technology on culture. However, this program does not contain evidence of cultural and linguistic perspectives and responsiveness and does not address the ethnicities, cultures, and backgrounds of minorities and historically underprivileged groups nor New Mexican communities. There are also several discrepancies between platform activities and corresponding lessons; activities and games might not be related to teacher demonstrations or PowerPoint.

Reviewer #: 77

Background and experience:

I have been teaching in New Mexico for 21 years, and am a Level III teacher. I have a Master's Degree in Educational Technology. For the past 3 years, I have been teaching Computer Science to grades K-8.

Professional summary of material:

I recommend Skill Struck to cover some of the standards, but not all of the standards for CS. The program does a good job of teaching computing systems to the primary grades. The images are simple, identifiable, and not overwhelming. The graphics on the first page help the students make their way through the lesson. Most of the games pertain to the standards being taught and allow plenty of time for review, but some of them seem to steer away from the standard being taught. It is a good program to teach basic computing skills to the elementary grades. Computational concepts are also covered in such a way that students have many opportunities to practice algorithms. However, after knowing the basic concepts of computing, they are limited in sharing their creativity and culture using this particular material. Also, there are no pieces of evidence of explicit debugging activities, data activities that propose outcomes, or methods to personalize sprites and/or backgrounds relevant to NM cultures.

Reviewer #: 78

Background and experience:

The reviewer is a Level II teacher with six years of experience in teaching, two years in computer science and six years in science.

Professional summary of material:

The material provides plenty of opportunities for learners to explore and enhance their skills in computers. They provide a variety of engaging and independent activities that allow students to practice and supports learners with disabilities and special needs. However, there is no evidence of specific instructions and few opportunities to engage learners in reflecting on the cultures of New Mexico. Some lessons contain multiple standards and lead to confusion about what particular assessment needs to be given.