Computer Science Evaluation Tool

2021 Curricular Materials Review

Grades 3-5 Computer Science[[1]](#footnote-1)

**Publisher information**

* Publisher Name:
* Title:
* Grade Level/Course:
* ISBN #:
* Author:
* Copyright:

**Instructions:**

Publishing Company:

* Complete the course evaluation form below. Please provide written justification as to how the material meets the standard along with location references. If a justification requires additional space, please submit response on an additional document.

Review Team Member:

* Please use information and attachments to complete the course evaluation form.
* Explain any discrepancies between your findings and those provided information. Explanations and comments should directly reflect the rubric.
* Further, explain any findings.

# Scoring:

* 0 = No Alignment – Not Evident: content as described in the Standards is not evident.
* .5 = Partial Alignment – Partially Evident: content as described in the Standards is partially evident and there are few gaps.
* 1 = High Alignment – Clearly Evident: content is fully aligned as described in the Standards and repeatedly included to guarantee extensive opportunities for students to work with the content. Alignment is clearly evident.
* N/A = Not applicable for standard.

# Standards alignment evaluation rubric:

## Standard 1: Computing Systems (CS)

| Performance Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. | Rating (Reviewer Only): |
| --- | --- | --- |
| 3-5.CS.01: Create code to model intelligent behavior in computing devices (e.g. CS unplugged activities, robot programming). (Grades 3-5) |  |  |
| 3-5.CS.02: Identify, using accurate terminology, simple hardware and software problems and apply strategies for solving these problems (e.g. rebooting the device, checking the power, access to the network, read error messages, discuss problems with peers and adults). (Grades K-5) |  |  |

## Standard 2: Data Analysis (DA)

| Performance Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. | Rating (Reviewer Only): |
| --- | --- | --- |
| 3-5.DA.01: Use outcome data (results) from running a simulation to solve a problem or answer a question in a core subject area, either individually or collaboratively. (Grades 3-5) |  |  |
| 3-5.DA.02: Understand how computers encode and store data (e.g. simple mapping of binary number to decimal number, letter, or color). (Grades 3-5) |  |  |
| 3-5.DA.03: Gather, manipulate, and evaluate data to explore a real world problem that is of interest to the student. (Grades 3-5) |  |  |

## Standard 3: Impacts of Computing (IC)

| Performance Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. | Rating (Reviewer Only): |
| --- | --- | --- |
| 3-5.IC.01: Practice responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and software. (Grades K-5) |  |  |
| 3-5.IC.02: Explore the connections between computer science and other fields. (Grades 3-5) |  |  |
| 3-5.IC.03: Generate examples of how the use of computing can affect society and how society can influence the use of computing. (Grades 3-5) |  |  |
| 3-5.IC.04: Explain ethical issues that relate to computers and networks (e.g. equity of access, security, privacy, copyright, digital citizenship, and intellectual property). (Grades 3-5) |  |  |
| 3-5.IC.05: Evaluate the positive and negative impacts of computing devices in daily life. (e.g., downloading videos and audio files, electronic appliances, wireless Internet, mobile computing devices, GPS systems, Internet of Things, wearable computing). Describe the pros and cons of these impacts.(Grades 3-5) |  |  |

## Standard 4: Networks and the Internet (NI)

| Performance Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. | Rating (Reviewer Only): |
| --- | --- | --- |
| 3-5.NI.01: Demonstrate how a device on a network sends and receives information. (Grades 3-5) |  |  |

## Standard 5: Algorithms and Programming (AP)

| Performance Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. | Rating (Reviewer Only): |
| --- | --- | --- |
| 3-5.AP.01: Identify and understand ways that teamwork and collaboration can support problem solving and the software design cycle. (Grades 3-5) |  |  |
| 3-5.AP.02: Construct and test problem solutions using a block-based visual programming language, both independently and collaboratively (e.g. pair programming). (Grades K-5) |  |  |
| 3-5.AP.03: Generate a list of sub-problems to consider while addressing a larger problem. (Grades 3-5) |  |  |
| 3-5.AP.04: Understand that computer program design is an iterative process that includes the following steps: define the problem, generate ideas, build a program, test the program, improve the program. (Grades 3-5) |  |  |
| 3-5.AP.05: Understand, explain and debug the sequencing in an algorithm. (Grades 3-5) |  |  |
| 3-5.AP.06: Construct and test problem solutions using a block-based visual programming language, both independently and collaboratively (e.g. pair programming). (Grades K-5) |  |  |
| 3-5.AP.07: Construct an algorithm to accomplish a task, both independently and collaboratively. (Grades K-5) |  |  |

**Indicators of quality Rubric:**

Supporting Criteria

Access and Equity:

| Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. | Rating (Reviewer Only): |
| --- | --- | --- |
| 1. Materials are provided in a way that ensures all students have the opportunity to achieve success in the program of study, including by meeting Title IX, Americans with Disabilities Act and other accessibility requirements. |  |  |
| 1. Materials and assessments are free from bias, inclusive and non-discriminatory, and offered in a way that ensures all students have the opportunity to achieve success in the program of study. |  |  |
| 1. Contains guidance to support differentiated and culturally responsive (i.e., purposefully represents diverse cultures, linguistic backgrounds, learning styles and interests) instruction in the classroom so that every student’s need are addressed by including:    1. Suggestions for how to promote equitable instruction by making connections to culture, home, neighborhood, and community as appropriate.    2. Appropriate scaffolding, interventions, and supports, including integrated and appropriate reading, writing, listening, and speaking alternatives (e.g., translations, picture support, graphic organizers) that neither sacrifice content nor avoid language development for English language learners, special needs, or below grade level readers.    3. Digital and print resources that provide various levels of readability.    4. Modifications and extensions for all students, including those performing above their grade level, to deepen understanding of the content.    5. Materials in multiple language formats. |  |  |

Student Focus:

| Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. | Rating (Reviewer Only): |
| --- | --- | --- |
| 1. The material supports the sequential and cumulative development of foundational skills and progresses in specificity to build students’ depth of knowledge and skills. Those skills are necessary for a student’s independent comprehension of grade-level complex texts and mastery of tasks called for by the standards. |  |  |
| 1. Content and standards within the program of study are non-duplicative and vertically aligned to prepare students to transition seamlessly to the next level of education. |  |  |
| 1. The material provides many and varied opportunities for students to work with each standard within the grade level. |  |  |
| 1. The material cross-refers and integrates other content areas. |  |  |
| 1. The material has a balance of text types and lengths that encourage close, in-depth reading and rereading, analysis, comparison, and synthesis of texts. |  |  |
| 1. The material includes sufficient supplementary activities or assignments that are appropriately integrated into the text. |  |  |
| 1. The material has activities and assignments that develop problem-solving skills and foster synthesis and inquiry at both an individual and group level. |  |  |
| 1. The material has activities and assignments that reflect varied learning styles of students. |  |  |
| 1. The material includes appropriate instructional strategies. |  |  |
| 1. Project-based learning and related instructional approaches, such as problem-based, inquiry-based and challenge-based learning, are fully integrated into the material. |  |  |

Pedagogical Approach:

| Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. | Rating (Reviewer Only): |
| --- | --- | --- |
| 1. Provides guidance for teachers throughout for how learning experiences build on each other to support students in developing a deep understanding of the content. |  |  |
| 1. Provides scaffolded supports for teachers to facilitate learning of the content so that students are increasingly responsible for making sense of the content. |  |  |
| 1. The material provides opportunities for supporting English language learners to regularly and actively participate with grade-level text. |  |  |
| 1. The material gives clear and concise instruction to teachers and students. It is easy to navigate and understand. |  |  |
| 1. Includes appropriate academic and content-specific vocabulary in the context of the learning experience that is accessible, introduced, reinforced, reviewed, and augmented with visual representations when appropriate. |  |  |
| 1. Allows teachers to access, revise, and print form digital resources (e.g., readings, labs, assessments, rubrics). |  |  |
| 1. Uses varied modes (selected, constructed, project-based, extended response, and performance tasks) of instruction-embedded pre-, formative, summative, peer, and, self-assessment measures of learning. |  |  |
| 1. Includes editable and aligned rubrics, scoring guidelines, and exemplars that provide guidance for assessing student performance and to support teachers in planning instruction and providing ongoing feedback to students. |  |  |
| 1. Provides multiple opportunities for students to demonstrate and receive feedback on performance of practices connected with their understanding of concepts. |  |  |

Presentation and Design:

| Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. | Rating (Reviewer Only): |
| --- | --- | --- |
| 1. The material has an aesthetically appealing appearance. |  |  |
| 1. Digital and print materials are consistently formatted, visually focused, and uncluttered for efficient use. |  |  |
| 1. The material has a reasonable and appropriate balance between text and illustration. The material has grade-appropriate font size. |  |  |
| 1. The illustrations clearly cross-reference the text, are directly relevant to the content (not simply decorative), and promote thinking, discussion, and problem solving. |  |  |
| 1. Non-text content (performance clips, images, maps, globes, graphs, pictures, charts, databases, and models) are accurate and well integrated into the text. |  |  |

Technology:

| Standards | Justification: Provide examples from materials as evidence to support each response for this section. Provide descriptions, not just page numbers. | Rating (Reviewer Only): |
| --- | --- | --- |
| 1. Technology and digital media support, extend, and enhance learning experiences. |  |  |
| 1. The material has “platform neutral” technology (i.e., cloud based) and availability for networking. |  |  |
| 1. The material has a user-friendly and interactive interface allowing the user to control (shift among activities). |  |  |

For Questions Contact

Content & Curriculum

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1. [Idaho Computer Science Standards](http://www.sde.idaho.gov/academic/shared/computer-science/ICS-Computer-Science-Standards.pdf) [↑](#footnote-ref-1)