



F.17 Computer Science - Grades 3-5

PROVIDER/PUBLISHER / MATERIAL INFORMATION (TO BE COMPLETED BY PROVIDER/PUBLISHER)

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| Provider/Publisher / Imprint: | | Grade(s): | |
| Title of Student Edition: | | Student Edition ISBN: | |
| Title of Teacher Edition: | | Teacher Edition ISBN: | |
| Title of SE Workbook: | | SE Workbook ISBN: | |

PUBLISHER CITATION VIDEO: Must be viewed before starting the review of this set of materials.

| | | | |
|--|---|-----------|-----------|
| Citation Video Link: | | | |
| Citation video certification: | I certify that I have viewed the citation video for this specific publisher and set of materials. | | |
| Digital Material Log In (if applicable): | Website: | Username: | Password: |

SCORING (TO BE COMPLETED BY REVIEWER AND FACILITATOR)

| | | | |
|------------------|--|-------|--|
| Reviewer Number: | | Date: | |
|------------------|--|-------|--|

Section 1: Standards Review: Computer Science

PROVIDER/PUBLISHER INSTRUCTIONS:

- Provider/Publisher citations for this section will refer to the **Teacher Edition (teacher-facing core material)** and/or **Student Edition/Student Workbook (student-facing core material)**. The cited Teacher Edition, Student Edition, and/or Student Workbook should correspond with titles and ISBNs entered on the Form F cover page, whether in print, online, or both. The review set submitted to the summer review institute should also correspond with what is cited on the Form F. If the review set is an online platform only, then that is what should be cited on the Form F and submitted for review by the review teams. If the review set is in print only, then that is what should be cited on the Form F and submitted for review by the review teams.
- For this section, the provider/publisher will enter two citations per standard (Columns C and G). Each citation should direct the reviewer to a specific location in the materials that best meets the standard. The citations should be concise and should allow the reviewer to easily determine that all components of the standard have been met. **Each citation should cover no more than 3 pages within the materials.**
 - o **Columns D and H:** Enter one citation in Column D and one citation in Column H from either the **Teacher Edition (teacher-facing core material)** OR **Student Edition/Student Workbook (student-facing core material)**. Each citation should direct the reviewer to a specific location in the materials that best meets the standard.
- The material will be scored for alignment with each standard as “Meets expectations,” “Partially meets expectations,” or “Does not meet expectations” based on the citations provided.
 - o **NOTE: You may not use a citation more than once across ALL sections of the rubric.**

Reviewer directions for Computer Science Standards Review:

Columns D-G: The provider/publisher will provide a citation from the **Teacher Edition (teacher-facing core material)** OR **Student Edition/Student Workbook (student-facing core material) (print and/or digital)** for each standard. Review the cited material and score the material by determining the degree to which it meets the standard:
 o M = Meets the standard
 o P = Partially meets the standard
 o D = Does not meet the standard
 Evidence for the publisher citations is required *only* if you score the materials with a D. For your evidence for each standard that scores a D, choose one of the options from the dropdown menu in Column G. If the reason for scoring the materials with a D is not one of the dropdown options, enter your own evidence statement in the cell in Column G.
 o **Each score cell (column E) will turn green as you score the materials.**

Columns H-K: The provider/publisher will provide a citation from the **Teacher Edition (teacher-facing core material)** OR **Student Edition/Student Workbook (student-facing core material) (print and/or digital)** for each standard. Review the cited material, score the material by determining the degree to which it meets the standard, and **provide evidence from the material to support your determination:**
 o M = Meets the standard
 o P = Partially meets the standard
 o D = Does not meet the standard
 o **Each score cell (column I) and evidence cell (column K) will turn green as you score the materials.**

| Criteria # | Identifier | F.18 Computer Science Grades 3-5 | Provider/Publisher Citation | Score | If Scored D: Reviewer's Evidence for Publisher Citation | Provider/Publisher Citation | Score | Required: Reviewer's Evidence for Publisher Citation | Comments, other citations, notes |
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LEVEL 1B: GRADES 3-5 COMPUTER SCIENCE STANDARDS

COMPUTING SYSTEMS

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|---|----------|---|--|--|--|--|--|--|--|
| 1 | 1B-CS-01 | Describe how internal and external parts of computing devices function to form a system. | | | | | | | |
| 2 | 1B-CS-02 | Model how computer hardware and software work together as a system to accomplish tasks. | | | | | | | |
| 3 | 1B-CS-03 | Determine potential solutions to solve simple hardware and software problems using common troubleshooting strategies. | | | | | | | |

NETWORKS AND THE INTERNET

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| 4 | 1B-NI-04 | Model how information is broken down into smaller pieces, transmitted as packets through multiple devices over networks and the Internet, and reassembled at the destination. | | | | | | | |
| 5 | 1B-NI-05 | Discuss real-world cybersecurity problems and how personal information can be protected. | | | | | | | |

DATA AND ANALYSIS

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| 6 | 1B-DA-06 | Organize and present collected data visually to highlight relationships and support a claim. | | | | | | | |
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| 7 | 1B-DA-07 | Use data to highlight or propose cause-and-effect relationships, predict outcomes, or communicate an idea. | | | | | | | |
| ALGORITHMS AND PROGRAMMING | | | | | | | | | |
| 8 | 1B-AP-08 | Compare and refine multiple algorithms for the same task and determine which is the most appropriate. | | | | | | | |
| 9 | 1B-AP-09 | Create programs that use variables to store and modify data. | | | | | | | |
| 10 | 1B-AP-10 | Create programs that include sequences, events, loops, and conditionals. | | | | | | | |
| 11 | 1B-AP-11 | Decompose (break down) problems into smaller, manageable subproblems to facilitate the program development process. | | | | | | | |
| 12 | 1B-AP-12 | Modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features. | | | | | | | |
| 13 | 1B-AP-13 | Use an iterative process to plan the development of a program by including others' perspectives and considering user preferences. | | | | | | | |
| 14 | 1B-AP-14 | Observe intellectual property rights and give appropriate attribution when creating or remixing programs. | | | | | | | |
| 15 | 1B-AP-15 | Test and debug (identify and fix errors) a program or algorithm to ensure it runs as intended. | | | | | | | |
| 16 | 1B-AP-16 | Take on varying roles, with teacher guidance, when collaborating with peers during the design, implementation, and review stages of program development. | | | | | | | |
| 17 | 1B-AP-17 | Describe choices made during program development using code comments, presentations, and demonstrations. | | | | | | | |
| IMPACTS OF COMPUTING | | | | | | | | | |
| 18 | 1B-IC-18 | Discuss computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices. | | | | | | | |
| 19 | 1B-IC-19 | Brainstorm ways to improve the accessibility and usability of technology products for the diverse needs and wants of users. | | | | | | | |
| 20 | 1B-IC-20 | Seek diverse perspectives for the purpose of improving computational artifacts. | | | | | | | |

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| 21 | 1B-IC-21 | Use public domain or creative commons media, and refrain from copying or using material created by others without permission. | | | | | | | |
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Section 2: Computer Science Content Review

PROVIDER/PUBLISHER INSTRUCTIONS:

- Provider/Publisher citations for this section will refer to the **Teacher Edition (teacher-facing core material)** and/or **Student Edition/Student Workbook (student-facing core material)**. The cited Teacher Edition, Student Edition, and/or Student Workbook should correspond with titles and ISBNs entered on the Form F cover page, whether in print, online, or both. The review set submitted to the summer review institute should also correspond with what is cited on the Form F. If the review set is an online platform only, then that is what should be cited on the Form F and submitted for review by the review teams. If the review set is in print only, then that is what should be cited on the Form F and submitted for review by the review teams.
- For this section, the provider/publisher will enter two citations per criterion (Columns C and G). Each citation should direct the reviewer to a specific location in the materials that best meets the criterion. The citations should be concise and should allow the reviewer to easily determine that all components of the criterion have been met. **Each citation should cover no more than 3 pages within the materials.**
 - o **Columns C and G:** Enter one citation in Column C and one citation in Column G from either the **Teacher Edition (teacher-facing core material)** OR **Student Edition/Student Workbook (student-facing core material)**. Each citation should direct the reviewer to a specific location in the materials that best meets the criterion.
- The material will be scored for alignment with each criterion as “Meets expectations,” “Partially meets expectations,” or “Does not meet expectations” based on the citations provided.
 - o **NOTE: You may not use a citation more than once across ALL sections of the rubric.**

Reviewer directions for Computer Science Content Review:

Columns C-F: The provider/publisher will provide a citation from the **Teacher Edition (teacher-facing core material)** OR **Student Edition/Student Workbook (student-facing core material) (print and/or digital)** for each criterion. Review the cited material and score the material by determining the degree to which it meets the criterion:

- o M = Meets the criterion
- o P = Partially meets the criterion
- o D = Does not meet the criterion

Evidence for the publisher citations is required *only* if you score the materials with a D. For your evidence for each criterion that scores a D, choose one of the options from the dropdown menu in Column F. If the reason for scoring the materials with a D is not one of the dropdown options, enter your own evidence statement in the cell in Column F.

o Each score cell (column D) will turn green as you score the materials.

Columns G-J: The provider/publisher will provide a citation from the **Teacher Edition (teacher-facing core material)** OR **Student Edition/Student Workbook (student-facing core material) (print and/or digital)** for each criterion. Review the cited material, score the material by determining the degree to which it meets the criterion, and **provide evidence from the material to support your determination:**

- o M = Meets the criterion
- o P = Partially meets the criterion
- o D = Does not meet the criterion

o Each score cell (column H) and evidence cell (column J) will turn green as you score the materials.

| Criteria # | Grades 3-8 Computer Science Content Criteria | Provider/Publisher Citation | Score | If Scored D: Reviewer's Evidence for Publisher Citation | Provider/Publisher Citation | Score | Required: Reviewer's Evidence for Publisher Citation | Comments, other citations, notes |
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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.

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| 1 | Instructional materials provide block programmed sequence activities that direct action of on-screen agents in virtual worlds and that sense and respond to the physical world. | | | | | | | |
| 2 | Instructional materials provide block programmed loop activities that direct action of on-screen agents in virtual worlds and that sense and respond to the physical world. | | | | | | | |
| 3 | Instructional materials provide block programmed math/logic activities that direct action of on-screen agents in virtual worlds and that sense and respond to the physical world. | | | | | | | |
| 4 | Instructional materials provide block programmed data activities that direct action of on-screen agents in virtual worlds and that sense and respond to the physical world. | | | | | | | |

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.

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| 5 | Instructional materials provide frequent guided opportunities for students to overcome problems stemming from incomplete programs, incorrect syntax, missing sensor/actuator libraries, or misfits between hardware and software. | | | | | | | |
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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.

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| 6 | Instructional materials provide frequent guided opportunities for students to create and construct designs for their physical computing devices that allows users to enjoy its programmed capabilities. | | | | | | | |
| 7 | Instructional materials provide frequent guided opportunities for students to co-create and co-construct designs for their physical computing devices that allows users to enjoy its programmed capabilities. | | | | | | | |

FOCUS AREA 4 ACCESSIBILITY AND EQUITY:

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| 8 | Instructional materials provide all students (e.g. those who read below grade level, students with special needs, gifted students, and ELL) with extensive opportunities to encounter and comprehend grade-level and complex concepts within the scope of computer science. | | | | | | | |
| 9 | Instructional materials help students to develop an understanding and appreciation for ethical behaviors and digital citizenship. | | | | | | | |

FOCUS AREA 5 TEACHER SUPPORT:

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| 10 | Instructional materials provide a detailed list of requisite software, libraries, hardware and tools. | | | | | | | |
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| Section 2: All Content Review | | | | |
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| PROVIDERS/PUBLISHERS: <ul style="list-style-type: none"> The All Content tab will be completed solely by the reviewers. They will score each criterion and provide evidence for their score from the material based on their overall review of the material. You will not provide any citations for this tab. The material will be scored for alignment with each criterion as “Meets expectations,” “Partially meets expectations,” or “Does not meet expectations”. | | | | |
| Reviewer directions for All Content Review: | | Columns C-F: The criteria presented on this tab will be scored and evidence provided based on your overall review of the materials. Review the material, score the material by determining the degree to which it meets each criterion, and provide evidence from the material to support your determination: <ul style="list-style-type: none"> o M = Meets the criterion o P = Partially meets the criterion o D = Does not meet the criterion Your evidence should speak to where in the materials you have found the evidence as well as what is in the materials that supports the score given. <ul style="list-style-type: none"> o Each score cell (column C) and evidence cell (column E) will turn green as you score the materials. o Any cells grayed out do not require a score or evidence. | | |
| Criteria # | All Content Criteria | Score | Required: Reviewer’s Evidence from Material | Comments, citations, notes |
| FOCUS AREA 1 RESOURCES AND SUPPORTS FOR TEACHERS AND STUDENTS: Instructional materials provide teacher resources to support planning and supports for all students. | | | | |
| 1 | Instructional materials provide a list of lessons in the Teacher Edition or teacher-facing core material (in print or clearly distinguished/accessible as a teacher-facing core material in digital materials), cross-referencing the standards addressed and providing an estimated instructional time for each lesson, chapter, and unit. | | | |
| 2 | Instructional materials integrate opportunities for digital learning, including interactive digital components, and digital assessment. | | | |
| 3 | Instructional materials incorporate features that aid students and teachers in making meaning of the text. | | | |
| 4 | Instructional materials provide appropriate linguistic support for English Learners and Culturally and Linguistically Diverse students, and accommodations and modifications for other special populations that will support their regular and active participation in learning content. | | | |
| 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. | | | | |

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| 5 | Instructional materials provide a variety of assessments that measure student progress in all strands of the standards for the content under review. <i>(Adopted New Mexico Content Standards for 2023: 7-12 Career and Technical Education Standards; CSTA K-12 Computer Science Standards; K-12 Health Education Standards; K-12 Physical Education Standards)</i> | | | |
| 6 | Instructional materials provide multiple formative and summative assessments, clearly defining which standards are being assessed through content and language objectives. | | | |
| 7 | Instructional materials provide appropriate assessment alternatives for English Learners, Culturally and Linguistically Diverse students, advanced students, and special needs students. | | | |
| 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. | | | | |
| 8 | Instructional materials inform culturally and linguistically responsive pedagogy by affirming students' backgrounds in the materials themselves and in the student discussions. | | | |
| 9 | Instructional materials include tools and resources to relate the content area appropriately to diversity in culture and language. | | | |
| 10 | Instructional materials include tools and resources that demonstrate multiple perspectives in a specific concept. | | | |
| 11 | Instructional materials engage students in critical reflection about their own lives and societies, including cultures past and present in New Mexico. | | | |
| 12 | Instructional materials address multiple ethnic descriptions, interpretations, or perspectives of events and experiences. | | | |