Item 4.C.1.

Attachment 2

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# California Department of Education Staff Recommendations for the California Computer Science Strategic Implementation Plan

| **Plan Section** | **Page/Heading** | **Current Language** | **Suggested Language** |
| --- | --- | --- | --- |
| California’s Commitment to Computer Science Education | p. 6 | N/A | Insert: The recommendations described in this report are included for each level in California’s educational system to consider when designing or expanding their CS programs and should not be viewed as requirements or mandates. |
| Expanding CS Offerings | p. 12  Funding Strategies for Expanding Course Offerings | Funding Strategies for Expanding Course Offerings | Strategies for Expanding Course Offerings |
| Expanding CS Offerings | p. 12  Funding Strategies for Expanding Course Offerings | Other districts may have constraints that do not allow them to make use of this LCFF funding, so an infusion of dedicated categorical funding to CS would be a boon to helping get this new K-12 discipline off the ground across California. | Delete sentence |
| Expanding CS Offerings | p. 12  Funding Strategies for Expanding Course Offerings | Dedicated funding for the development, improvement, and implementation of integrated CS courses through the University of California Course Integration (UCCI) program could also increase learning opportunities at the high school level. This additional funding would allow more students to pursue computer science in CTE pathways while also allowing them to fulfill “a-g” subject requirements for admission into the University of California and California State University systems | The University of California Course Integration program offers free institutes in which high school and college educators gather to work in collaborative teams to create courses that integrate core academic courses with Career Technical Education (CTE) content. Developing and submitting integrated courses would allow more students to pursue computer science in CTE pathways, while also allowing them to fulfill “a-g” subject requirements for admission into the University of California and California State University systems. |
| Summary of Recommended Strategies for Expanding K-12 Computer Science Course Offerings | p. 13  Table | Create computer science UCCI Courses | Participate in free UCCI workshops to develop computer science courses that are integrated into core academic subjects. |
| Summary of Recommended Strategies for Expanding K-12 Computer Science Course Offerings | p. 13  Table | Dedicate funding for the creation and implementation of computer science courses and services | Delete |
| Improving Access to Computer Science Education for all Students | p. 14  Current State of Computer Science Education Access | As noted above, access to CS courses is profoundly inequitable across the state. | As noted above, access to CS courses is highly variable across the state. |
| Improving Access to Computer Science Education for All | p. 18  Table | N/A | Insert: Develop a webpage to house materials that represent best practices in CS education with an emphasis on recruiting and serving historically underrepresented groups in CS courses |
| Improving Access to Computer Science Education for all Students | p. 18  Table | Plan outreach advocacy events focused on creating awareness of computer science, especially for groups traditionally underrepresented in computer science courses. | Partner with community organizations and non-profits to plan outreach advocacy events focused on creating awareness of computer science, especially for groups traditionally underrepresented in computer science courses. |
| Supporting Educators to Teach Computer Science | p. 23  Strategies for Teacher Training | For example, the EnCorps program provides industry professionals with the pedagogical training and classroom experience needed to pursue certification for STEM subjects | Delete |
| Supporting Educators to Teach Computer Science | p. 25  Table | N/A | Create a second summary table that includes strategies for supporting educator that include costs. Add a note above the chart that states *Pending funding, the state should consider implementing the activities recommended by the CSSIPP in the table below*. These recommendations would include: passing legislation of CS credential, providing administrators and counselors with CS training, developing a CSET for CS, expanding the subject matter projects, developing credit-bearing professional learning opportunities. |
| Making Systematic Improvements in Computer Science Education | p. 26  Strategies for Accountability and Evaluation | At the state level, CS should be included into a future system for collecting data on enrollment and achievement in CS education. While tracking such data on high school students will be facilitated by the use of course codes specific to CS, determining how to track participation at the K-8 level where CS will likely be integrated into existing courses will require creative strategies, | Delete sentence. |
| Making Systematic Improvements in Computer Science Education | p. 26  Strategies for Accountability and Evaluation | CDE should convene stakeholders to review the CS standards every seven years to evaluate whether they should be refreshed. If revision is recommended, legislative authority to update the standards should be sought | Delete sentences and delete from summary chart on page 28. |
| Making Systematic Improvements in Computer Science Education | p. 27  Strategies for Funding and Institutional Support | A new Curriculum and Instruction Steering Committee (CISC) sub-committee specific to computer science could be created to support stakeholders in addressing the needs of teachers and to provide a network for professional development activities | Delete or revise to indicate that this CISC subcommittee already exists. |
| Making Systematic Improvements in Computer Science Education | p. 28  Table | N/A | Add to the summary chart: providing an evaluation criteria to adopt CS instructional materials and develop an online curriculum and instruction steering committee (CISC) for Computer Science. |
| Making Systematic Improvements in Computer Science Education | p. 28  Table | Ensure consistency in IT infrastructure through standards and dedicated personnel | Identify standards for IT infrastructure and dedicated personnel to support CS programs |
| Making Systematic Improvements in Computer Science Education | p. 28  Table | N/A | Create a second summary table that includes strategies for supporting educator that include costs. Add a note above the chart that states “*Pending funding, the state should consider implementing the activities recommended by the CSSIPP in the table below*”. These recommendations would include: providing funding and staff at the state level and local level to support CS education efforts, provide financial support to help teachers CS computer coursework, build awareness of CS standards through roll-out workshops |
| Appendices | pp. 30–43  Appendix A, B, and C | See pages 30–43 | Remove appendix A, B and C from the plan and develop a CDE Computer Science Resources Webpage to house and update the information. Remove references to the appendices throughout the plan. |

California Department of Education, January 2019