

## 4.0 COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

**4.1 Computer Science and Information Technology (CL):** Students will understand computer science and information technology concepts necessary to function in a rapidly changing technological, global society. They will demonstrate competency by performing multiple tasks required to develop and use appropriate resources to access, modify, and provide information effectively.

### Link to Content Standards for California Public Schools

Benchmarks	English Standards	Math Standards	Science Standards	Social Science/ History Standards
4.1.1 Business and Technology Ethics—define, explain, and demonstrate proper business and technology ethics, including management of intellectual property	(9-10)R2.6; <b>(9-10)R1.5;</b> (9-10)R2.3e; <b>(9-10)R2.4;</b> (11-12)R3.5c; (11-12)R3.7c		(9-12)I&E1 g, m	(10)WH10.8.5; (11)USH11.3; (11)USH11.8.7; (11)USH11.9.3; (11)USH11.11.4; (12)AD12.2; (12)AD12.3; (12)AD12.5, 6; (12)AD12.10
4.1.2 Computer and Communications Systems—use operating systems, hardware and peripherals, integrating communication tools and appropriate resources, to share information	(9-10)R2.6; (9-10)W1.8; (9-10)W2.3d; (9-10)W2.6; (11-12)W1.8; (11-12)W2.6; (11-12)LS2.4		(9-12)I&E1 a	
4.1.3 Computer Applications—identify, select, and use a variety of business and industry standard applications software; discuss current and emerging standards technology and trends	<b>(8)R2.1;</b> (9-10)R2.6; (9-10)W1.8; (9-10)W2.3d; (9-10)W2.6; (11-12)W1.8; (11-12)W2.6; (11-12)LS2.4	<b>(6)SDP1.1;</b> <b>(6)SDP2.5;</b> <b>(6)SDP3.1, 3.3, 3.5;</b> <b>(7)MR1.1, 1.2;</b> <b>(7)MR2.1, 2.3, 2.4, 3.1, 3.3</b>	(9-12)I&E1 a	

Bold face type indicates those standards proposed for assessment on the High School Exit Exam

## Link to Content Standards for California Public Schools

Benchmarks	English Standards	Math Standards	Science Standards	Social Science/ History Standards
4.1.4 Knowledge Management and Business Processes–use technology and electronic media to identify, analyze, design, and create processes to manage workflow, communicate a collective understanding, and provide feedback for operational management	<b>(8)R2.1;</b> (9-10)R2.6; (9-10)W1.8; (9-10)W2.3d; (9-10)W2.6; (11-12)W1.8; (11-12)W2.6; (11-12)LS2.4	<b>(6)SDP1.1;</b> <b>(6)SDP2.5;</b> <b>(6)SDP3.1, 3.3, 3.5;</b> <b>(7)NS1.3;</b> <b>(7)NS1.6, 1.7;</b> <b>(7)NS2.2;</b> <b>(7)AF4.2;</b> <b>(7)MG1.3;</b> <b>(7)SDP1.1-1.3;</b> <b>(7)MR1.1, 1.2;</b> <b>(7)MR2.1, 2.3, 2.4, 3.1, 3.3</b>	(9-12)I&E1 a,	
4.1.5 Program Design and Development–identify programming models and data elements including the development of user-friendly systems	(9-10)W2.6; (11-12)W1.1, 1.3; (11-12)W1.6-1.8	<b>(7)AF1.1, 1.2;</b> <b>(7)MR1.1, 1.2;</b> <b>(7)MR2.1, 2.3, 2.4, 3.1, 3.3</b>	(9-12)I&E1 a, d, e, g	
4.1.6 Project Management–prioritize activities and manage the details including project scope, timelines, and budgets for the life cycle of the system in a team environment	(9-10)R2.3; (9-10)R2.6	<b>(6)SDP2.5;</b> <b>(6)SDP3.1, 3.5;</b> <b>(7)NS1.3;</b> <b>(7)NS1.6, 1.7;</b> <b>(7)NS2.2;</b> <b>(7)MR1.1, 1.2;</b> <b>(7)MR2.1, 2.4, 3.1, 3.3</b>		

Bold face type indicates those standards proposed for assessment on the High School Exit Exam

## Link to Content Standards for California Public Schools

Benchmarks	English Standards	Math Standards	Science Standards	Social Science/ History Standards
4.1.7 Security—illustrate and implement basic security plans and procedures for information systems	<b>(9-10)R2.1-2.4;</b> (9-10)R2.6; (9-10)W2.6; (11-12)W1.6-1.8	<b>(6)SDP2.5;</b> <b>(7)MR1.1, 1.2;</b> <b>(7)MR2.1, 2.3, 2.4, 3.1, 3.3</b>	(9-12)I&E1 c	
4.1.8 Systems Analysis and Design—analyze current manual and electronic systems and develop efficient and effective solutions	<b>(8)R2.1;</b> <b>(9-10)R2.1-2.4;</b> (9-10)R2.6; (9-10)W2.6; (11-12)W1.6-1.8	<b>(6)SDP2.5;</b> <b>(6)SDP3.1, 3.3, 3.5;</b> <b>(7)NS1.3;</b> <b>(7)NS1.6;</b> <b>(7)SDP1.1-1.3;</b> <b>(7)MR1.1;</b> <b>(7)MR3.1, 3.3;</b> <b>AI-10.0;</b> AI-13.0; <b>AI-15.0</b>	(9-12)I&E1 a, b, c, d, j	
4.1.9 Technical Resources—locate, organize and engage appropriate resources necessary to implement and support systems and/or solve problems	<b>(8)R2.1;</b> <b>(9-10)R2.1-2.4;</b> (9-10)R2.6; (9-10)W2.6; (11-12)W1.6-1.8	<b>(7)MR1.1;</b> <b>(7)MR3.1, 3.3</b>	(9-12)I&E1 a, b, c, d, j	

Bold face type indicates those standards proposed for assessment on the High School Exit Exam