

CompuScholar, Inc.
Alignment to Texas
"Career and College Readiness (CCRS)" Standards
All CompuScholar Courses

Texas Standards:

Standards Name:	Career and College Readiness (CCRS)
Focus Area:	Cross-Disciplinary Standards
Standards Link:	TFC_CCRS.pdf

Description

Preparing students for a computing career beyond high school is the heart of CompuScholar's mission. We teach technical subjects with a real-world, hands-on focus, and our courses naturally align to the Texas "Cross-Disciplinary" CCRS standards as described below.

I. Key Cognitive Skills	
A. Intellectual curiosity	DESCRIPTION
1. Engage in scholarly inquiry and dialogue.	Every lesson has suggested classroom discussion topics.
2. Accept constructive criticism and revise personal views when valid evidence warrants.	Team projects within each course give opportunity for intra-team discussion and revision as well as peer-review and incorporation of feedback into the final product.
B. Reasoning	DESCRIPTION
1. Consider arguments and conclusions of self and others.	Team projects within each course give opportunity for intra-team discussion and revision as well as peer-review and incorporation of feedback into the final product.
2. Construct well-reasoned arguments to explain positions.	Team projects within some courses include writing clear requirements and design documentation. Some courses also include a supplemental lesson on technical writing that involves research and presentation of facts.
3. Gather evidence to support arguments, findings, or lines of reasoning	Team projects within some courses include writing clear requirements and design documentation. Some courses also include a supplemental lesson on technical writing that involves research and presentation of facts.
4. Support or modify claims based on the results of an inquiry.	Team projects within each course give opportunity for intra-team discussion and revision as well as peer-review and incorporation of feedback into the final product.
C. Problem solving	DESCRIPTION
1. Analyze a situation to identify a problem to be solved.	Students will read activity instructions within every chapter in order to understand and complete hands-on projects and solve specific problems.

2. Develop and apply multiple strategies to solve a problem.	Courses will describe multiple ways to solve the same problem, where relevant, and discuss the pros and cons of each approach.
3. Collect evidence and data systematically and directly relate to solving a problem.	Some hands-on projects involve careful building and testing of coded projects, with test results matched to the activity instructions and expected results. Other hands-on projects require online research and gathering of data to incorporate into the final product.
D. Academic behaviors	DESCRIPTION
1. Self-monitor learning needs and seek assistance when needed.	Students get immediate feedback on a lesson-by-lesson basis with the results of automated lesson quizzes. Students can seek assistance for specific topics based on the quiz results. Students can also complete numerous in-lesson, hands-on exercises to verify understanding of the immediate lesson material.
2. Use study habits necessary to manage academic pursuits and requirements.	All courses follow a consistent pattern of instructional material, in-lesson exercises to re-enforce skills, lesson quizzes to verify understanding, and hands-on projects and chapter tests to demonstrate mastery. This consistent approach allows student to develop the study habits necessary to be successful.
3. Strive for accuracy and precision.	Both in-lesson exercises and chapter projects provide specific goals and the means to compare student work to expected results.
4. Persevere to complete and master tasks.	Courses can be configured to allow re-takes of quizzes and tests as well as re-submission of projects, at teacher discretion. Students are therefore encouraged to correct issues and improve grades, subject to district policy.
E. Work habits	DESCRIPTION
1. Work independently.	Courses contain large numbers of in-lesson exercises and chapter activities that can be completed individually, with minimal teacher guidance.
2. Work collaboratively.	Courses contain team projects that allow students to collaborate on extended projects.
F. Academic integrity	DESCRIPTION
1. Attribute ideas and information to source materials and people.	Courses contain lessons on ethics in computing, intellectual property, digital copyrights, plagiarism and citation of sources.
2. Evaluate sources for quality of content, validity, credibility, and relevance.	When research is done to gather external information, students are encouraged to evaluate those sources to meet the project needs. Internal and peer review gives opportunities to evaluate and correct sources.
3. Include the ideas of others and the complexities of the debate, issue, or problem.	Team projects within each course give opportunity for intra-team discussion and revision as well as peer-review and incorporation of feedback into the final product.

4. Understand and adhere to ethical codes of conduct.	Courses contain lessons on ethics in computing, intellectual property, digital copyrights, plagiarism and citation of sources.
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II. Foundational Skills	
A. Reading across the curriculum	DESCRIPTION
1. Use effective prereading strategies.	Built-in instructional videos for each lesson will introduce and re-enforce the text lesson concepts.
2. Use a variety of strategies to understand the meanings of new words.	Built-in instructional videos for each lesson will introduce and re-enforce key terms. Students are also encouraged to seek peer or teacher clarification or use built-in language translator links to identify new words.
3. Identify the intended purpose and audience of the text.	Where applicable, projects intended for external consumption are encouraged to use styles and terms suitable for the intended audience. Students may also read a variety of external reference material to understand how technical information is communicated as official standards.
4. Identify the key information and supporting details.	Built-in instructional videos for each lesson will introduce and re-enforce key lesson concepts. The lesson text will expand the concepts with full details.
5. Analyze textual information critically.	Students must carefully review lesson text and activity instructions in order to successfully complete hands-on projects. Students may also read a variety of external reference material to understand how technical information is communicated as official standards.
6. Annotate, summarize, paraphrase, and outline texts when appropriate.	Large course projects are often broken into a series of careful steps that allow students to plan, design, and execute tasks in a top-down manner, filling in additional details at the appropriate time.
7. Adapt reading strategies according to structure of texts.	All courses follow similar patterns of instructional material that consistently offers introductory videos and full lesson text. Student can adopt the reading strategy that best suits their individual learning style.
8. Connect reading to historical and current events and personal interest.	Where applicable, lessons will include relevant historical notes or examples that connect to a student's every-day life.
B. Writing across the curriculum	DESCRIPTION
1. Write clearly and coherently using standard writing conventions.	All courses include numerous projects that demand written output (code, text, and other documents) that meet specific syntax requirements.
2. Write in a variety of forms for various audiences and purposes.	All courses include opportunities to generate a variety of digital artifacts (planning documents, design documents, content documents, coded projects, test plans and results, etc.)

3. Compose and revise drafts.	Larger projects give opportunities to test and revise work. These projects also allow for peer review and incorporation of external suggestions into the final product.
C. Research across the curriculum	DESCRIPTION
1. Understand which topics or questions are to be investigated.	Courses include projects that allow free-form student investigation into topics of their choosing, subject to guidance and requirements within each project.
2. Explore a research topic.	Courses include projects that allow free-form student investigation into topics of their choosing, subject to guidance and requirements within each project.
3. Refine research topic based on preliminary research and devise a timeline for completing work.	Team projects include phased steps such as research, design, implementation, and testing based on a project timeline.
4. Evaluate the validity and reliability of sources.	When research is done to gather external information, students are encouraged to evaluate those sources to meet the project needs. Internal and peer review gives opportunities to evaluate and correct sources.
5. Synthesize and organize information effectively.	Team projects include opportunities to obtain, generate and present information in effective formats (e.g. coded projects and other content documentation).
6. Design and present an effective product.	Team projects include design and implementation steps. Teams are encouraged to present their work to the class when finished.
7. Integrate source material.	Team projects encourage integration of research material into the final output.
D. Use of data	DESCRIPTION
1. Identify patterns or departures from patterns among data.	Students are taught to recognize consistent situations where a particular approach (coding skill, documentation format, etc.) is a typical and effective solution.
2. Use statistical and probabilistic skills necessary for planning an investigation and collecting, analyzing, and interpreting data.	Student projects that involve gathering of data will incorporate the collection, analysis, and presentation of that data.
3. Present analyzed data and communicate and display findings in a clear and coherent manner	Team projects include opportunities to obtain, generate and present information in effective formats (e.g. coded projects and other content documentation).
E. Technology	DESCRIPTION
1. Use technology to gather information.	Our online courses use modern technology to deliver all instructional content through a web browser. Students will further use appropriate online sources and technical reference material as needed for specific projects.
2. Use technology to organize, manage, and analyze information.	Team projects include opportunities to obtain, generate and present information in effective formats (e.g. coded projects and other content documentation).

3. Use technology to communicate and display findings in a clear and coherent manner	Team projects include opportunities to obtain, generate and present information in effective formats (e.g. coded projects and other content documentation).
4. Use technology appropriately	Best practices for specific skills are taught in each course. Courses also include lessons on ethical computing and security.