

https://www.educateiowa.gov/sites/files/ed/documents/K-12_21stCentSkills_0.pdf		
21st Century Skill	Standard	How Curriculum Addresses
Employability Skills	(21.6-8.ES.1) Communicate and work productively with others, considering different perspectives, and cultural views to increase the quality of work.	<p>Unit 1: Lessons: 1, 3, 4, 6, 7, 8, 9</p> <p>Unit 2: Lessons: 3, 4, 5</p> <p>Unit 3: Lessons: 2, 8, 10, 19</p> <p>Unit 4: Lessons: 1-17</p> <p>Unit 5: Lessons: 1, 2, 6, 8, 9</p> <p>Unit 6: Lessons: 2</p> <p>If a teacher chooses to have students pair program, the entire curriculum involves working with others and how to appropriately communicate, consider different perspectives, and be productive working with others.</p>
Employability Skills	(21.6-8.ES.2) Adapt and adjust to various roles and responsibilities in an environment of change.	<p>Units 1-6</p> <p>The CS Discoveries curriculum weaves individual work together with group work throughout the six units. Often times students will be led through the process of "think, pair, share" where they consider a topic or problem individually, discuss their thoughts with a partner or small group, and then share with the whole class as a group. This process is designed to engage students with varying levels of comfort in talking within a larger group. By allowing students to form their own opinions and thoughts and then sharing with 1-2 peers, all perspectives are encouraged. Then those that may be more willing to speak to the larger classroom may choose to share out what their pair or small group discussed to bring all perspectives to the larger classroom.</p> <p>The projects that students create throughout all six units are structured to provide a baseline of understanding, but are also open-ended to provide room for creativity, innovation, and opportunity for students of various comfort levels with the content.</p> <p>The Computer Science Discoveries curriculum is designed to spiral on itself, where the first three units focus on building skills individually and students practice working in groups. Then the second three units flip this model and focus more on building skills within groups and practice developing individual skills within groups.</p>

Employability Skills	(21.6-8.ES.4) Demonstrate initiative, self-direction, creativity, and entrepreneurial thinking while exploring individual talents and skills necessary to be successful. Perform work without oversight.	Unit 2: Lessons: 3, 4, 6, 7, 8, 9, 10, 11, 13, 14 Unit 3: Lessons: 1, 3, 4, 5, 6, 7, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 Unit 4: Lessons: 10, 12, 13, 14, 16, 17 Unit 5: Lessons: 4, 5, 7, 8, 10, 11 Unit 6: Lessons: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
Technology Literacy	(21.6-8.TL.1) Demonstrate creative thinking in the design and development of innovative technology products and problem solving.	Unit 2: Students learn how to create and share the content on their own web pages. After deciding what content to share with the world, they learn how to structure and style web pages using HTML and CSS. Students will also practice valuable programming skills such as debugging and commenting. By the end of the unit, they will have a personal website that can be published to the Internet. Unit 3: Students build on their coding experience as they program animations, interactive art, and games. The unit starts off with simple shapes and builds up to more sophisticated sprite-based games, using the same programming concepts and the design process computer scientists use daily. In the final project, students develop a personalized, interactive program. Unit 4: This unit focuses on user design. This requires students to understand their users, prototype their ideas, gather feedback, learn about the iterative process, and create a final application. Unit 5: Students learn how to represent data through encoding information. They also learn how to use Big Data to solve problem, including through visualization, interpretation, and automation. Unit 6: Design, develop, and test programs that include user interfaces as well as input from and output to a hardware device.
Technology Literacy	(21.6-8.TL.5) Understand the legal and ethical issues of technology as related to individuals, cultures, and societies.	Unit 2: Lessons: 5, 7, 12
Technology Literacy	(21.6-8.TL.6) Understand the underlying structure and application of technology systems.	Unit 2: Lessons: 8 Unit 3: Lessons: 3, 14, 16 Unit 4: Lessons: 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 15, 16