

8th Grade iExplore Lab Scope and Sequence: 2021-2022

Sixth through eighth grade students are offered electives unique to each campus based on their signature programs. The scope and sequence will align with each specific elective. Elective courses will include discussions about related STEM career pathways and Dysart CTE programs.

Topics	Design Thinking Process	Digital Citizenship	Technology Skills	Career Exploration
Learning Objectives	Students will use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.	<p>Students will recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world.</p> <p>Students will act and model in ways that are safe, legal and ethical.</p> <p><i>(Because we no longer are required to have the core class you can fit the digital citizenship lessons in where you can.)</i></p>	Students will understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.	Students will: <ul style="list-style-type: none"> ● Gain a better understanding of their strengths and skills. ● Reflect on how they best learn to identify strengths/skills that can be used to accomplish their goals and long-term career success. ● Students will continue to explore DUSD CTE pathways and build their high school course plan.
Academic Vocabulary	brainstorm design thinking empathize define ideate prototype test blueprint communication creativity critical thinking collaboration	digital footprint alteration distortion online only in-person face-to-face upstanding dilemmas privacy policies targets stereotypes copyright cyberbullying	site-specific tech robotics coding arduino 3D printing	career clusters occupation CTE transcript trade school GPA honors AP dual enrollment skills

<p>Lessons and Resources</p>	<p>Edible Car Challenge instructions and Rubric</p> <p>Edible cars from TPT (Free)</p> <p>Design Thinking Website</p> <p>Project Ideas</p> <p>DefinedSTEM protocol</p> <p>PBSkids Design Squad</p> <p>Design Thinking Process</p> <p>Design Thinking Process TEMPLATE</p> <p>*Give simple directions*</p> <p>Create a robot that:</p> <ul style="list-style-type: none"> -is original -is presentable -can complete a task on its own -solves a problem <p>Create a boat:</p> <ul style="list-style-type: none"> -no more than 12 inches long -no more than 5 inches wide -has to hold 50 grams of weight -move from one side to another without you touching it <p>STEM lessons & resources:</p> <p>Try Engineering</p> <p>teachengineering.org</p> <p>vivifystem.com/</p> <p>Maricopa Co STEM Resources</p> <p>cyber.org</p>	<p>Common Sense Media: updated Gr 8 Lessons</p> <p>Being Aware of What You Share How can you protect your privacy when you're online?</p> <p>Digital Media and Your Brain How does digital media try to hook you, and what can you do about it?</p> <p>Social Media and Digital Footprints How does using social media affect our digital footprints?</p> <p>Digital Footprint Article</p> <p>Be Internet Awesome Curriculum - lessons</p> <p>Interland: Dig Cit Game</p> <p>Be Internet Awesome PD</p> <p>Alternative Research Activity (TpT \$)</p>	<p>CS First Coding Kits</p> <p>CodeHS Middle School courses: coding, web design, virtual reality, etc.</p> <p>CodeHS.com</p> <p>CodeHS.com VR</p> <p>Scratch.mit.edu</p> <p>Code.org- grade level curriculum</p> <p>Virtual VEX coding: https://vr.vex.com/</p> <p>Coding Facilitative Questions</p> <p>Google Applied Digital Skills</p> <p>Exploring Google Docs: Google Docs Scavenger Hunt for Students</p> <p>Tinkercad</p>	<p>Students will complete the 8th grade section of the ECAP MIDDLE SCHOOL DUSD spreadsheet. Assign a Google Drive assignment in Schoology to create a copy for each student. This document will be saved so students can share with high school counselors. Students will add this document to their Schoology portfolio to access in high school.</p> <p>DUSD ECAP Scope and Sequence (Grades 5-8) - review for additional resources</p> <p>Transition to High School</p> <ul style="list-style-type: none"> ● Plan of Study- Look at courses that will need to be selected for high school course selection. Dysart Course Selection Guide ● Include CTE courses that you will take. <p>Career Exploration</p> <ul style="list-style-type: none"> ● Major Clarity- Lesson plans ● Skills Search ● Click on pathway links to explore Dysart CTE Pathways.
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	Facilitative Questions for Maker Activities			<ul style="list-style-type: none"> ● Identify two CTE Pathways that you are interested in. ● iExplore/CTE High School Programs Slide Show ● West-MEC slide show <p>ECAP Middle Grades resources from ADE- watch for updated ADE resources this summer</p> <p>Banzai Financial Literacy- optional</p> <p>Possible Futures Curriculum- Health Sciences, Engineering, IT, Career and 4Cs skills (Lessons are in Schoology.)</p>
Assessments	Students have a design thinking rubric and do self assessments as well as peer assessments during their lessons. iExplore Rubric	The Interland curriculum has an assessment at the end of each lesson. Students cannot move on until they pass the assessment.		
Suggested Standards DOK Verbs for	ISTE Standards	Arizona Computer Science Standards	K-12 Computer Science Framework ISTE Standards	

Objectives			Arizona Computer Science Standards	
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