

## 4th Grade iExplore Lab Scope and Sequence: 2021-2022

Topics	Library Skills	Design Thinking Process	Keyboarding skills (Not a stand alone unit)	Digital Citizenship	Technology Exploration
<b>Learning Objectives</b>	<p>Students will understand library materials organization: fiction (alpha), non-fiction (numerical), reference, and signage.</p> <p>Students will use Destiny (online catalog) to search for library materials.</p>	<p>Students will use a variety of resources within a design process to identify and solve problems by creating new, useful or imaginative solutions.</p>	<p>Students will use home row and correct finger placement on the keyboard to improve speed and accuracy.</p> <p>Typing goals: 90% - 100% accuracy 20 WPM</p>	<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>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.</p>
<b>Academic Vocabulary</b>	barcode keyword nonfiction fiction copyright genre publisher digital ebooks	brainstorm design thinking empathize define ideate prototype test blueprint communication creativity critical thinking collaboration  <a href="#">Design Thinking poster</a>	keyboard accuracy speed wpm: words per minute homerow	private personal empathy plagiarism credit citation acceptable use characteristics secure expectations norms responsibly motto	internet online website digital research coding loops algorithm sequence programming debugging conditionals value

<p><b>Lessons and Resources</b></p>	<p><a href="#">Reference Detectives</a></p>	<p><a href="#">Design Thinking Website</a></p> <p><a href="#">Defined Learning</a> projects by grade level</p> <p><a href="#">Defined Learning Protocol</a></p> <p><a href="#">Design Thinking Project Ideas</a></p> <p><a href="#">PBSkids Design Squad</a></p> <p>STEM lessons &amp; resources: <a href="#">Try Engineering</a></p> <p><a href="#">teachengineering.org</a></p> <p><a href="#">vivifystem.com/</a></p> <p><a href="#">Maricopa Co STEM Resources</a></p> <p><a href="#">nicerc.org</a></p> <p><a href="#">STEM &amp; iExplore book list</a></p> <p><a href="#">Facilitative Questions for Maker Activities</a></p>	<p><a href="#">Typingclub.com</a> through Clever</p> <p><a href="#">Dance Mat Typing</a></p> <p><a href="#">Typing.com</a></p> <p><a href="#">Free Typing Games</a></p>	<p><a href="#">CommonSense Media: updated Gr 4 Lessons</a></p> <p><a href="#">Private and Personal Information</a></p> <p>What information about you is OK to share online?</p> <p><a href="#">Super Digital Citizen</a></p> <p>How can we be upstanders when we see cyberbullying?</p> <p><a href="#">Our Online Tracks</a></p> <p>How does our online activity affect the digital footprints of ourselves and others?</p> <p><a href="#">Be Internet Awesome Curriculum</a></p> <p><a href="#">Interland: Dig Cit Game</a></p> <p><a href="#">Be Internet Awesome PD</a></p>	<p>Robotics</p> <p>Coding</p> <p><a href="#">Scratch.mit.edu</a></p> <p><a href="#">Code.org</a>- grade level curriculum</p> <p><a href="#">Coding Facilitative Questions</a></p> <p>3D Printing</p> <p>Site-specific tech</p> <p><a href="#">Email format and etiquette lessons</a></p>
<p><b>Assessments</b></p>		<p>Students have a design thinking rubric and do self assessments as well as peer assessments during their lessons.</p> <p><a href="#">iExplore Rubric</a></p>	<p>Progress is tracked in the online programs and assessments are within the program.</p>	<p>Interland curriculum has an assessment at the end of each lesson. Students cannot move on until they pass the assessment.</p> <p><a href="#">-4th grade digital citizenship quiz</a></p>	

<b>Suggested Standards</b>			<a href="#">Arizona Computer Science Standards</a>	<a href="#">ISTE Standards</a> <a href="#">Arizona Computer Science Standards</a> <a href="#">AZ Ed Tech Standards by grade level</a>	