



Technology Curriculum Instructional Plan (Grades K-6)

This instructional plan provides a framework for a comprehensive technology curriculum for students in Kindergarten through 6th grade. The plan is designed to be flexible and can be adapted to fit different classroom environments and resource availability.

Guiding Principles:

- **Age-Appropriate:** Concepts are introduced and revisited with increasing complexity as students mature.
 - **Hands-on and Project-Based:** Students learn by doing, creating, and solving problems.
 - **Integrated Learning:** Technology skills are often tied to other subject areas like math, science, and language arts.
 - **Safe and Responsible Use:** Digital citizenship is woven into all lessons to promote positive online behavior.
 - **Creativity and Innovation:** Students are encouraged to use technology as a tool for self-expression and problem-solving.
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The curriculum is structured by grade level and covers a variety of topics, including:

- **Typing:** Students start with basic keyboard familiarity in kindergarten and progress to mastering touch typing by 5th and 6th grade.
- **3D Design and Printing:** The program introduces foundational concepts of 3D shapes in the early grades and advances to problem-solving through 3D design and printing in the upper grades.
- **Coding:** Beginning with unplugged activities and block-based programming, the curriculum introduces students to text-based coding languages like Python by 5th and 6th grade.
- **Artificial Intelligence (AI):** Students learn to identify AI in everyday life, understand how it learns, and engage in discussions about its societal impact and ethical considerations.
- **Digital Citizenship:** This is a core component of the curriculum, teaching students about online safety, privacy, responsible communication, and media literacy.
- **Computer Skills and Tools:** Students build essential skills, starting with basic computer operation and progressing to using productivity tools like Google Suite for collaboration and research.

The plan emphasizes project-based learning and assesses student progress through a combination of projects, observation, and digital portfolios.

K-6 Technology Class Expectations

Technology class is a place for learning, creating, and collaborating. To make sure everyone has a great experience, we all agree to follow these simple rules.

Be Respectful

- **Listen to the teacher and to each other.** Wait for your turn to speak and raise your hand with questions.
- **Be kind with your words and actions, both in person and online.** Cyberbullying and unkind comments are never okay.
- **Handle equipment with care.** Technology tools are expensive and we want them to last. Use the keyboards, mice, iPads, and other devices gently.
- **Clean up your workspace before you leave.** Make sure you log out, push in your chair, and put away any materials you used.

Be Responsible







- **Follow directions the first time they are given.** This helps us all stay on task and learn as much as possible.
- **Only use the websites and apps that the teacher has approved.** Do not download programs or change computer settings without permission.
- **Protect your personal information.** Never share your name, address, phone number, or passwords with anyone except your teacher or parents.
- **Save your work.** Losing your hard work is frustrating. Remember to save your projects often and in the correct folder.

Be a Good Digital Citizen

- **Be a safe explorer.** If you see something online that makes you feel uncomfortable, close the screen and tell a teacher or trusted adult immediately.
- **Give credit where it's due.** When you use a picture, video, or information from the internet, always let people know where you got it. Plagiarism is not allowed.
- **Understand that your words and actions online last forever.** This is called your "digital footprint." Think before you type or post.

Assessment & Evaluation:

- **Project-based assessments:** Students are evaluated on their final projects in 3D design, coding, and other creative tasks.
- **Observation:** The teacher observes student participation, collaboration, and problem-solving skills during class activities.
- **Portfolio:** Students maintain a digital portfolio of their work to showcase their progress over the year.
- **Rubrics:** Clear rubrics are used to evaluate projects and skills based on the learning objectives.
- **Typing drills:** Regular timed drills are used to measure progress in typing speed and accuracy.

	<p>Tinkercad is a web-based 3D modeling program that uses a simple drag-and-drop interface of primitive shapes to help students create models for 3D printing and other projects.</p>
	<p>Code.org provides high-quality and age-appropriate computer science curriculum and tools to students from kindergarten through high school.</p>
	<p>Scratch is a visual, block-based programming language that enables students to create interactive stories, games, and animations, helping them to develop essential skills like creative thinking, systematic reasoning, and collaboration without the complexities of traditional coding syntax.</p>
	<p>Typing.com is an online platform that provides students with a gamified curriculum to learn and practice touch typing, improve their speed and accuracy, and develop essential digital literacy skills.</p>
	<p>Learning.com provides students with a K-12 curriculum that teaches essential digital literacy and computer science skills, including keyboarding, coding, online safety, and productivity tools, often through interactive, game-based lessons.</p>
	<p>ReadyAI is an organization that provides comprehensive AI education resources to empower students worldwide to use artificial intelligence to improve the world.</p>