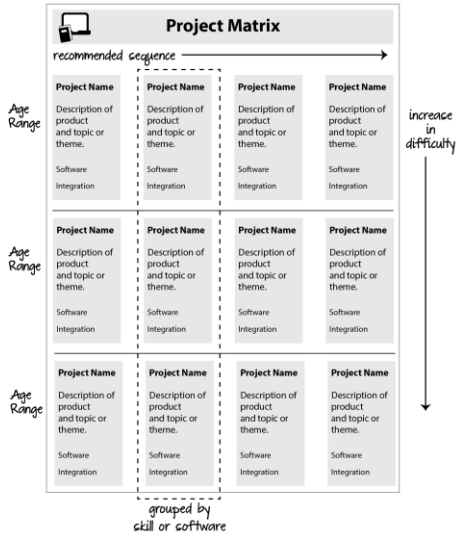
TechnoKids Project Matrix | Scope and Sequence

TechnoKids has over 30 projects. If you are designing a course, curriculum unit, or workshop series use the Project Matrix to select a project to teach. This document arranges the projects by age range and organizes them into a proposed sequence. Please note, these are recommendations only. Any TechnoKids project can be taught independently or blended with other titles to form a unique learning experience for students.

How do I select a project to teach?



- **Age Range**: The Project Matrix provides a recommended sequence of instruction. The Primary, Junior, and Intermediate collections organize projects into rows. The top row are the simplest projects, and the bottom row are more challenging. The division can be mapped to ages. For example, in the Junior collection, the top row is ages 8-9 the middle row is ages 9-10, and the bottom row is ages 10-11.
- **Scope and Sequence**: If you plan to teach multiple TechnoKids projects the Project Matrix recommends an order. In each row, the projects increase in difficulty. For this reason, the project in the first column could be taught at the start of the school year, whereas the project in the last column is best suited to the end of the school year.
- **Technology Skill**: If you intend to target a specific skill, the Project Matrix groups many of the projects. For example, in both the Junior and Intermediate collections, the first column is word processing, the second column is spreadsheet/data analysis, the third column is presentation, and the fourth column is programming. The projects are sequenced from top to bottom and gradually introduce new skills.
- **Developmentally Appropriate**: In the Project Matrix the projects build upon one another and increasingly become more complex. Assignments lengthen, students complete a greater amount of work, and tasks require higher order thinking. Moreover, often there is a blend of multiple types of software. If your students are beginners you can select a project from a lower age range as these are suggestions only.
- **Product or Subject**: Throughout the TechnoKids curriculum, the same application is used for multiple purposes. For example, students use Google Slides or PowerPoint to create a book, slide show, presentation, graphic story, timeline, advertisement, interactive map, and online debate. Read the descriptions in the Project Matrix to pick a digital product you want your students to create or pick one that fits with a subject area you are teaching (e.g., timeline for history, map for geography, or graphic story for language arts).
- **Topic**: Refer to the Project Matrix to select a project that integrates with a topic or theme you are already teaching. Many technology projects are open-ended. This provides an opportunity to blend curriculum content with digital learning tools. Alternatively, you can select one to act either as a starting point for a unit or as a culminating project at the end of a unit.
- **Student Interest**: Engage learners. Have them select a technology project that is personally meaningful. Alternatively, the teacher can choose a title, such as TechnoJournal or TechnoSite, that allows each student to select a topic of personal interest.
- **Instructional Time**: To understand how long a project will take to complete, read the descriptions in the TechnoKids Overview. Each project provides a detailed outline, as well as lists the number of assignments and extension activities. An assignment can range from 30-60 minutes, depending on the age of students. Typically, it takes about 6-8 weeks to complete a project if your students attend class twice a week. However, if they go every day you can complete a project in about 2-3 weeks. Many can be shortened by omitting assignments or lengthened by including skill reviews and extension activities.
- **Software or App**: Refer to the table in the Project Matrix. It summarizes the versions available for each project. You can pick a project based on software availability or the app you want to teach.

TechnoKids Technology Project Matrix

The collection of TechnoKids technology projects is designed to be developmentally appropriate. They gradually build competency of technology skills. Refer to the recommended sequence.

Primary Technology Projects (Ages 5-8)
Primary technology projects are for beginners. They provide a foundation for learning. Activities emphasize fundamentals. Students create artwork, write stories, make presentations, and more!

Ages 5-7	TechnoStart	TechnoStories	TechnoMe
	Earn a computer operator license. Engage in fun activities to learn about hardware, terminology, computer rules, and keyboarding.	Become an author. Use templates to plan, write, edit, and illustrate stories. Share the books during story time with friends or family.	Design an *All About Me* slide show. Outline personal information, accomplishments, goals, and interests in a mini biography.
	Software: Paint or Drawings	Software: Word or Docs	Software: PowerPoint or Slides
	ICT & STEM integration: visual arts with graphic skills and computer fundamentals	ICT & STEM integration: language arts with word processing skills	ICT & STEM integration: social studies with presentation skills
Ages 6-8	TechnoPainter or TechnoGallery	TechnoBookmaking	TechnoWhiz
	Spark creativity! Produce unique artwork using digital tools. Develop fine motor skills to paint original images and display them in a gallery.	Publish a collection of books. Create a tiny picture book, flip flap story, unfolding riddle book, layer book of facts, bookmarks, card, and more!	Become a programming whiz kid. Build simple scripts and loops to create silly scenes, feed a pet monster, explore a magical land, and invent a racing game.
	Software: Paint or Drawings	Software: PowerPoint or Slides	Software: Scratch Jr
	ICT & STEM integration: visual arts with graphic skills and computer fundamentals	ICT & STEM integration: language arts with word processing skills	ICT & STEM integration: mathematics with coding skills

Junior Technology Projects (Ages 8-11)
Junior technology projects are for elementary students. They focus upon essential skills. Activities promote the practical application of technology. Students become responsible digital citizens, conduct research, animate graphic stories, build games and more!

Ages 8-9	TechnoJournal Express ideas and describe experiences in a journal. Reflect upon an event, make a note of favorite things, and list personal wishes. Software: Word or Docs ICT & STEM integration: language arts with word processing skills	TechnoInternet Embark on an online expedition to become a responsible digital citizen. Apply search strategies, access digital resources, and communicate safely. Software: web browser ICT & STEM integration: digital citizenship and Internet skills	TechnoPresenter Present information effectively. Summarize facts using a slide show and organize speaker notes. Deliver a speech to an audience. Software: PowerPoint/Word or Slides/Docs ICT & STEM integration: public speaking and research with presentation skills	TechnoTales Blend coding with storytelling. Design a modern fairy tale that has a hero go on a quest. Build scripts to animate the story action. Software: Scratch Jr ICT & STEM integration: creative writing with coding skills	
Ages 9-10	TechnoResearch Research to design a fact card. Apply strategies to retrieve quality information from reliable sources. Combine images and text in a one-sheet report. Software: Word or Docs ICT & STEM integration: language arts with word processing skills	TechnoCandy Devise a strategy to boost candy sales. Conduct a survey and study packaging to investigate a problem. Recommend a solution based on the evidence. Software: Excel/PowerPoint/Word, or Sheets/Slides/Docs/Forms ICT & STEM integration: math and problem solving with spreadsheet skills	TechnoToon Animate a graphic story. Plan the characters, setting, and plot. Divide the scenes using transitions. Time events to produce a one-of-a-kind cartoon. Software: PowerPoint or Slides ICT & STEM integration: language arts with presentation and animation skills		
Ages 10-11	TechnoEditor Edit a collection of stories. Master text, picture, and page layout formatting techniques to publish a high-quality publication. Software: Google Docs or Microsoft Word ICT & STEM integration: language arts with word processing skills	TechnoSite Become a web designer. Construct a website that includes links to fun places for kids on the WWW. Will it get the *Kid Stamp of Approval*? Software: Google Sites ICT & STEM integration: language arts with digital citizenship and web design skills	TechnoTimeline Explain the significance of events with a timeline. Research a topic to connect important moments in time. Display information using a graphic organizer. Software: PowerPoint or Slides ICT & STEM integration: social studies and history with presentation skills	TechnoTurtle Develop and debug code to conquer mazes, paint pixel art, create a Mad Lib Generator and build a carnival game. Software: IDLE Python 3 ICT & STEM integration: math and language arts with programming skills	TechnoTrivia Invent a game. Test knowledge about a topic. Set the answer key to calculate points. Analyze quiz results. Software: Google Forms or Microsoft Forms ICT & STEM integration: math and social studies with information management skills

Intermediate Technology Projects (Ages 11-14)
Intermediate technology projects are for middle or high school students. They develop proficiency in using ICT applications. Activities emphasize critical and creative thinking. Students design publications, analyze data, code web pages, and more!

Ages 11-12	TechnoNewsletter Publish a fan club newsletter. Write an informative article, construct a word search, and express an opinion. Format pages to lay out content attractively. Software: Word or Docs ICT & STEM integration: language arts with word processing skills	TechnoRestaurateur Launch a business venture. Plan a restaurant concept, conduct a survey, create a logo, generate funds, build a floor plan, manage finances, and more! Software: Excel/PowerPoint/Word or Sheets/Slides/Docs/ Drawings/Forms ICT & STEM integration: math and entrepreneurship with ICT	TechnoTravel Promote a weekend getaway for tourists. Research the trip. Customize a slide master to create a unique marketing tool that persuades visitors to vacation. Software: Excel/PowerPoint/Word or Sheets/Slides/Docs ICT & STEM integration: language arts and geography with presentation skills	TechnoCode Spark an interest in computer science. Design an Activity Studio for kids using Scratch. Build blocks of code to design animations, puzzles, stories, and games. Software: Scratch ICT & STEM integration: computer science and programming skills	
Ages 12-13	TechnoBiography Celebrate a remarkable person. Format the bio using styles, graphic organizer, and artifacts table. Build a table of contents. Cite sources in a bibliography. Software: Word or Docs/Drawings ICT & STEM integration: language arts and history with word processing skills	TechnoBudget Justify a spending plan for a shopping trip. Calculate, and graph data to form a budget. Report financial choices and explain money management strategy. Software: Excel/Paint/Word or Sheets/Drawings/Docs ICT & STEM integration: math and financial literacy with spreadsheet skills	TechnoMap Highlight the importance of a location by constructing an interactive map. Connect facts about an area or issue using markers and hyperlinks. Software: PowerPoint /Word or Slides/Docs ICT & STEM integration: geography or history with presentation skills	TechnoHTML5 Develop a web page using HTML and CSS. Write code to set the style of the background, text, lists, graphics, hyperlinks, and tables. Upload to the Internet. Software: Notepad or other text editor ICT & STEM integration: computer science and programming skills	
Ages 13-14	TechnoEarth Raise awareness of an environmental issue. Design an interactive infographic. Advocate for change at an Earth Keeper's Conference. Software: Docs, Sites, Slides, Sheets, My Maps, Drawings ICT & STEM integration: geography and science with publishing and presentation skills	TechnoQuestionnaire Investigate a research question. Select a sample and construct a questionnaire. Conduct a pre-test to tweak the design. Analyze data to interpret findings. Software: Google Forms ICT & STEM integration: math and the scientific process with information management skills	TechnoDebate Collaborate with a partner to debate an issue. Create an animated conversation that presents a persuasive argument. Defend a position. Software: PowerPoint Online or Slides ICT & STEM integration: language arts and debate techniques with presentation skills	TechnoPython Program a series of games using Python including Pet Monster Rescue, Guess It, and Adventure Quest. Share your favorite one in a coding presentation. Software: IDLE Python 3 ICT & STEM integration: math and language arts with programming skills	TechnoBlog Become a blogger. Participate in an online community. Express ideas appropriately. Software: blogging service (e.g. Kidblog.org) ICT & STEM integration: digital citizenship and language arts with blogging skills

Senior Technology Projects (Ages 14+)
Senior technology projects are for middle or high school students. They prepare students for higher learning and career readiness. Activities emphasize real-world applications of technology. Students market products, build databases, and more!

Select a project for a course. Use it to teach a technology skill or as a culminating project.

TechnoWonderland

Manage an amusement park to learn about Microsoft Office. Produce a flyer, design a map, create signs, poll customers, advertise rides, and more!

Software: Word, Excel, PowerPoint, Publisher, Access

ICT & STEM integration: computer studies with ICT skills

TechnoInvestor

Buy and sell stocks on the TechnoStock Exchange. Track the investments and graph future earnings. Report the portfolio holdings and justify decisions.

Software: Excel, Word

ICT & STEM integration: financial literacy with spreadsheet skills

TechnoMission

Manage data. Plan a simple database. Build a table and data entry form. Filter and sort records. Generate a report that summarizes information.

Software: Access, Paint

ICT & STEM integration: computer studies with database skills

TechnoAdvertise

Role play a marketing executive. Submit a cover letter and résumé to apply for the job. Once hired, design a flyer, catalog, custom mailer, and newsletter.

Software: Word

ICT & STEM integration: marketing with word processing skills

TechnoSpecialist

Develop an information package about hardware. Explain the attributes of computer components to educate the public in making purchasing decisions.

Software: PowerPoint

ICT & STEM integration: computer hardware with presentation skills

TechnoPlanner

Construct a database for a party planning business. Build tables, forms, queries, and reports to organize customer and event information.

Software: Word, Access

ICT & STEM integration: business studies with database systems

TechnoPhotoshop

Edit photos to produce a digital scrapbook. Filter, retouch, crop, warp, recolor, and superimpose images. Apply design techniques to lay out pages.

Software: Adobe Photoshop CC

ICT & STEM integration: media arts with graphic design and photo editing

TechnoAnimate

Animate drawings to make a movie. Create scenes with motion tweens, shape tweens, and motion paths. Set the action and sound on the Timeline.

Software: Adobe Animate CC

ICT & STEM integration: media arts with animation skills

TechnoKids Technology Project Summary

TechnoKids Technology Projects are available for Microsoft Office, Office Online, Google Docs, Adobe, and programming.

	Microsoft Office						Office Online					Internet		Google Docs							Adobe		Programming			
Recommended Ages	Paint	Word	PowerPoint	Excel	Access	Publisher	Word Online	PowerPoint Online	Excel Online	Forms Online	Forms for Excel	Web Browser	Kidblog Service	Drawings	Docs	My Maps	Slides	Sheets	Sites	Forms	Photoshop CC	Animate CC	Text Editor	Scratch	Scratch Jr	Python 3
Primary Ages 5-8																										
TechnoBookmaking			•					•									•									
TechnoGallery														•												
TechnoMe			•					•									•									
TechnoPainter	•																									
TechnoStart	•													•												
TechnoStories		•					•								•											
TechnoWhiz																									•	
Junior Ages 8-11																										
TechnoCandy		•	•	•			•	•	•		•				•		•	•		•						
TechnoEditor		•													•											
TechnoInternet												•														
TechnoJournal		•					•								•											
TechnoPresenter		•	•				•	•									•									
TechnoResearch		•					•								•											
TechnoSite																			•							
TechnoTales																									•	
TechnoTimeline		•	•				•	•							•		•									
TechnoToon			•					•									•									
TechnoTurtle																										•
TechnoTrivia				•						•								•		•						
Intermediate Ages 11-14																										
TechnoBiography		•					•	•						•	•											
TechnoBlog													•													
TechnoBudget	•	•		•			•		•					•	•			•								
TechnoCode																								•		
TechnoDebate							•	•							•		•									
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TechnoHTML 5																							•			
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TechnoNewsletter		•					•								•											
TechnoPython																										•
TechnoQuestionnaire																		•		•						
TechnoRestaurateur		•	•	•			•	•	•		•			•	•		•	•		•						
TechnoTravel		•	•	•			•	•	•						•		•	•								
Senior Ages 14+																										
TechnoAdvertise		•																								
TechnoSpecialist			•																							
TechnoMission	•				•																					
TechnoInvestor		•		•																						
TechnoPlanner					•																					
TechnoWonderland		•	•	•	•	•																				
TechnoPhotoshop																					•					
TechnoAnimate																						•				