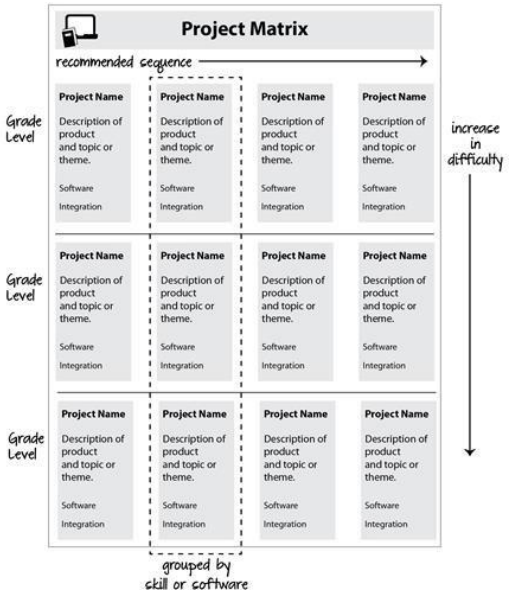
TechnoKids Project Matrix | Scope & Sequence

TechnoKids has over 40 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 grade level 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?



- Grade Level: 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 grade levels. For example, in the Junior collection, the top row is Grade 3/4, the middle row is Grade 4/5, and the bottom row is Grade 5/6.
- Scope & 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 last 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 grade level 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 grade level. 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 Project Matrix | Scope & Sequence

TechnoKids curriculum has a gradual progression of learning. Skills and competencies scaffold within and across grades. Understanding how technology projects build upon one another can help educators structure their lessons. Whether selecting one project for a unit of study, building a course, or launching a school-wide program, the TechnoKids Scope & Sequence provides recommendations.

TechnoKids curriculum divides into categories: Primary (Grades 1-3), Junior (Grades 3-6), Intermediate (Grades 6-8), and Senior (Grades 8-12). As students advance within and across grades, the technology projects shift from simple to complex.

Primary Technology Projects (Grades 1-3)

Primary technology projects are for beginners. They provide a foundation for learning.

Activities emphasize fundamentals. Students create artwork, write stories, make presentations, and more!

	Computer Applications | Digital Literacy			Computer Science
Grades 1/2	TechnoStart Earn a computer operator license. Engage in fun activities to learn about hardware, terminology, computer rules, and keyboarding. *Paint or Drawings* visual arts; graphics and computer fundamentals	TechnoStories Become an author. Use templates to plan, write, edit, and illustrate stories. Share the books during story time with friends or family. *Word or Docs* language arts; word processing	TechnoMe Design an *All About Me* slide show. Outline personal information, accomplishments, goals, and interests in a mini biography. *PowerPoint or Slides* social studies; presentation	TechnoWhiz 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. *Scratch Jr* mathematics; coding
Grades 2/3	TechnoPainter or TechnoGallery Spark creativity! Produce unique artwork using digital tools. Develop fine motor skills to paint original images and display them in a gallery. *Paint or Drawings* visual arts; graphics, computer fundamentals	TechnoBookmaking Publish a collection of books. Create a tiny picture book, flip flap story, unfolding riddle book, layer book of facts, bookmarks, card, and more! *PowerPoint or Slides* language arts; word processing	TechnoFit Join the TechnoFit Club. Inform others about the importance of a healthy lifestyle by designing a food guide, menu plan, and fitness poster. Be fit and live well! *Publisher* health and nutrition; desktop publishing	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. *Scratch Jr* creative writing; coding

Junior Technology Projects (Grades 3-6)

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, code games, and more!

	Computer Applications | Digital Literacy				Computer Science
Grades 3/4	TechnoJournal Express ideas and describe experiences in a journal. Reflect upon an event, make a note of favorite things, and list personal wishes. *Word or Docs* language arts; word processing	TechnoInternet Embark on an online expedition to become a responsible digital citizen. Apply search strategies, access digital resources, and communicate safely. *web browser* digital citizenship; Internet	TechnoPresenter Present information effectively. Summarize facts using a slide show and organize speaker notes. Deliver a speech to an audience. *PowerPoint/Word or Slides/Docs* public speaking, research; presentation		TechnoArcade Design arcade games. Build *Jumble Tumble*, *Let's Jam*, *Mystery Island*, and *Lost Treasure*. Invite friends to an online arcade. *Scratch* math, language arts; coding
Grades 4/5	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. *Word or Docs* language arts; word processing	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. *Excel/PowerPoint/Word, or Sheets/Slides/Docs/ Forms* math, problem solving; spreadsheets	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. *PowerPoint or Slides* language arts; presentation, animation	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?* *Google Sites* language arts; digital citizenship, web design	TechnoRace Develop an original game. Players race to complete a mission before time is up. To win they must avoid obstacles and collect treasure. Collaborate to test game design. *Scratch* game development; coding
Grades 5/6	TechnoEditor Edit a collection of stories. Master text, picture, and page layout formatting techniques to publish a high- quality publication. *Word or Docs/Drawings* language arts; word processing	TechnoSales Investigate dessert preferences. Graph and calculate data. Analyze the information to plan a bake sale. Report fundraiser details. *Excel/Word or Sheets/Docs* math, problem solving; spreadsheets, data management	TechnoTimeline Explain the significance of events by creating a unique graphic organizer that connects events along a timeline. *PowerPoint or Slides* social studies, history; presentation	TechnoTrivia Invent a game. Test knowledge about a topic. Set the answer key to calculate points. Analyze quiz results. *Google Forms or Microsoft Forms* math, social studies; data management	TechnoTurtle Develop and debug code to conquer mazes, paint pixel art, create a *Mad Lib Generator* and build a carnival game. *IDLE Python 3* math, language arts; programming

Intermediate Technology Projects (Grades 6-9)

Intermediate technology projects are for middle or high school students. They develop proficiency in using technology.

Activities emphasize critical, creative, and computational thinking. Students design publications, analyze data, build web pages, program games, and more!

	Computer Applications | Digital Literacy				Computer Science
Grades 6/7	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. *Word or Docs* language arts; word processing	TechnoRestaurateur Launch a business venture. Plan a restaurant, create a logo, conduct a survey, generate funds, build a floor plan, manage finances, and more! *Excel/PowerPoint/Word or Sheets/Slides/Docs/ Drawings/Forms* entrepreneurship; integrated unit	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. *Excel/PowerPoint/Word or Sheets/Slides/Docs* language arts, geography; presentation	**COMING SOON** TechnoCommercial Produce a commercial using proven marketing and production techniques. Storyboard a concept, record the action, and edit the footage. Export the video. *Blender* video production	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. *Scratch* math, language arts; coding
Grades 7/8	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. *Word or Docs/Drawings* language arts, history; word processing	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. *Excel/Paint/Word or Sheets/Drawings/Docs* financial literacy; spreadsheets	TechnoMap Highlight the importance of a location by constructing an interactive map. Connect facts about an area or issue using markers and hyperlinks. *PowerPoint /Word or Slides/Docs* geography, history; presentation		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. *Notepad or other text editor* web design; coding
Grades 8/9	TechnoEarth or TechnoEnvironment Raise awareness of an environmental issue. Design either an infographic with Google apps or a pamphlet with Publisher. Advocate for change. *Word/Publisher or Docs/Sites/Slides/ Sheets/My Maps/Drawings* geography, science; publishing, presentation	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. *Google Forms* research; data management	TechnoDebate Collaborate with a partner to debate an issue. Create an animated conversation that presents a persuasive argument. Defend a position. *PowerPoint Online or Slides* language arts, debate techniques; presentation	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. *IDLE Python 3* math, language arts; programming	**COMING SOON** TechnoAI Learn about computer vision and autonomous vehicles with the help of Scratch. Customize a delivery route using sensors to detect touch, color, and distance. *Scratch* programming, artificial intelligence

Senior Technology Projects (Grades 8-12)

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!

	Computer Applications | Digital Literacy			
Grades 8-12	TechnoWonderland Manage an amusement park to learn about Microsoft Office. Produce a flyer, design a map, create signs, poll customers, advertise rides, and more! *Word, Excel, PowerPoint, Publisher, Access* word processing, Internet, spreadsheets, presentation, desktop publishing, data management	TechnoInvestor Buy and sell stocks on the TechnoStock Exchange. Track the investments and graph future earnings. Report the portfolio holdings and justify decisions. *Excel, Word* financial literacy; spreadsheets	TechnoMission Manage data. Plan a simple database. Build a table and data entry form. Filter and sort records. Generate a report that summarizes information. *Access, Paint* computer studies; data management	
	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. *Word* marketing; word processing	TechnoSpecialist Develop an information package about hardware. Explain the attributes of computer components to educate the public in making purchasing decisions. *PowerPoint* computer hardware; presentation	TechnoPlanner Construct a database for a party planning business. Build tables, forms, queries, and reports to organize customer and event information. *Word, Access* business studies; data management	
	TechnoPhotoshop Edit photos to produce a digital scrapbook. Filter, retouch, crop, warp, recolor, and superimpose images. Apply design techniques to lay out pages. *Adobe Photoshop CC* media arts, graphic design, 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. *Adobe Animate CC* media arts, animation		

TechnoKids Projects and Software

TechnoKids Technology Projects are available for Microsoft 365, Google Docs, Adobe, and programming.

	Microsoft Office						Office for the Web						Google							Adobe		Programming			
Suggested grade levels:	Paint	Word	PowerPoint	Excel	Access	Publisher	Word Online	PowerPoint Online	Excel Online	Forms Online	Forms for Excel	Web Browser	Drawings	Docs	My Maps	Slides	Sheets	Sites	Forms	Photoshop CC	Animate CC	Text Editor	Scratch	Scratch Jr	Python 3
Primary Grades 1-3																									
TechnoBookmaking			•					•								•									
TechnoFit						•																			
TechnoGallery													•												
TechnoMe			•					•								•									
TechnoPainter	•																								
TechnoStart	•												•												
TechnoTales																								•	
TechnoStories		•					•							•											
TechnoWhiz																								•	
Junior Grades 3-6																									
TechnoArcade																							•		
TechnoCandy		•	•	•			•	•	•		•			•		•	•		•						
TechnoEditor		•											•	•											
TechnoInternet												•													
TechnoJournal		•					•							•											
TechnoPresenter		•	•				•	•								•									
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TechnoToon			•					•								•									
TechnoTurtle																									•
TechnoTrivia				•						•							•		•						
Intermediate Grades 6-9																									
TechnoBiography		•					•	•					•	•											
TechnoBudget	•	•		•			•		•				•	•			•								
TechnoCode																							•		
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TechnoRestaurateur		•	•	•			•	•	•		•		•	•		•	•		•						
TechnoTravel		•	•	•			•	•	•					•		•	•								
Senior Grades 8-12																									
TechnoAdvertise		•																							
TechnoSpecialist			•																						
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TechnoInvestor		•		•																					
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TechnoAnimate																					•				