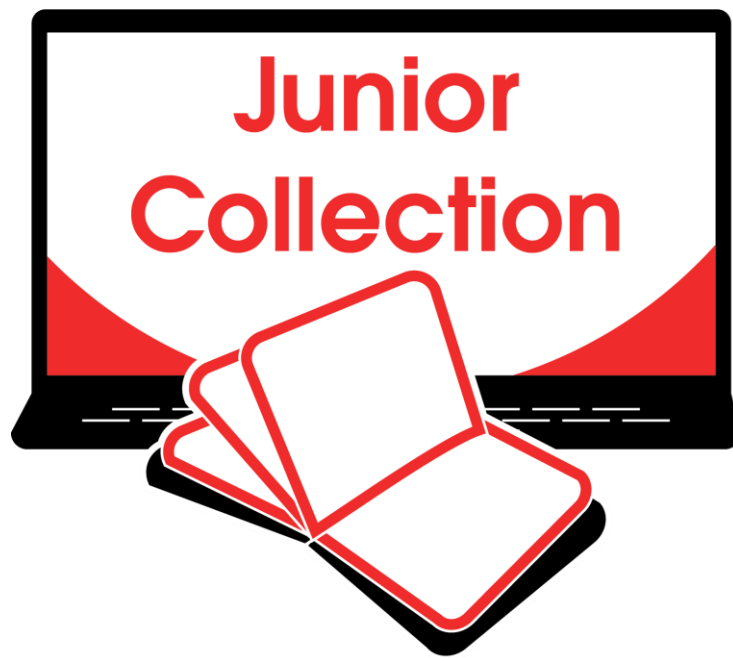


TECHNOkids®

JUNIOR Curriculum Collection



PROJECT-BASED LESSONS: DIGITAL LITERACY AND STEM ACTIVITIES

A collection of technology courses for
Microsoft Office, Google Docs, programming, and more!

Contents

Junior Technology Courses and Software	2
Junior Technology Courses Scope & Sequence	3
Junior Technology Course Descriptions	4
TechnoArcade	4
TechnoCandy.....	5
TechnoEditor	6
TechnoInternet	7
TechnoJournal.....	8
TechnoPresenter.....	9
TechnoRace	10
TechnoResearch.....	11
TechnoSales.....	12
TechnoSite.....	13
TechnoTimeline.....	14
TechnoToon	15
TechnoTurtle	16
TechnoTrivia	17
Helpful Resources	18
Contact Information.....	19

Junior Technology Courses and Software

TechnoKids Technology Courses are available for Microsoft Office, Office for the Web, Google Docs, and programming. Refer to the table to identify projects that are right for you!

Suggested grade levels:	Microsoft Office				Office for the Web					Google						Code		
	Paint	Word	PowerPoint	Excel	Word Online	PowerPoint Online	Excel Online	Forms Online	Forms for Excel	Web Browser	Drawings	Docs	Slides	Sheets	Sites	Forms	Scratch	Python 3
Junior Grades 3-6																		
TechnoArcade																	•	
TechnoCandy		•	•	•	•	•	•		•			•	•	•		•		
TechnoEditor		•									•	•						
TechnoInternet										•								
TechnoJournal		•			•							•						
TechnoPresenter		•	•		•	•							•					
TechnoRace																	•	
TechnoResearch		•			•							•						
TechnoSales		•		•								•		•				
TechnoSite															•			
TechnoTimeline		•	•		•	•						•	•					
TechnoToon			•			•							•					
TechnoTurtle																		•
TechnoTrivia				•				•						•		•		

Junior Technology Courses | Scope & Sequence

Junior technology courses 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	<p>TechnoJournal</p> <p>Express ideas and describe experiences in a journal. Reflect upon an event, make a note of favorite things, and list personal wishes.</p> <p><i>Word or Docs</i></p> <p>language arts; word processing</p>	<p>TechnoInternet</p> <p>Embark on an online expedition to become a responsible digital citizen. Apply search strategies, access digital resources, and communicate safely.</p> <p><i>web browser</i></p> <p>digital citizenship; Internet</p>	<p>TechnoPresenter</p> <p>Present information effectively. Summarize facts using a slide show and organize speaker notes. Deliver a speech to an audience.</p> <p><i>PowerPoint/Word or Slides/Docs</i></p> <p>public speaking, research; presentation</p>		<p>TechnoArcade</p> <p>Design arcade games. Build <i>Jumble Tumble</i>, <i>Let's Jam</i>, <i>Mystery Island</i>, and <i>Lost Treasure</i>. Invite friends to an online arcade.</p> <p><i>Scratch</i></p> <p>math, language arts; coding</p>
Grades 4/5	<p>TechnoResearch</p> <p>Research to design a fact card. Apply strategies to retrieve quality information from reliable sources. Combine images and text in a one-sheet report.</p> <p><i>Word or Docs</i></p> <p>language arts; word processing</p>	<p>TechnoCandy</p> <p>Devise a strategy to boost candy sales. Conduct a survey and study packaging to investigate a problem. Recommend a solution based on the evidence.</p> <p><i>Excel/PowerPoint/Word, or Sheets/Slides/Docs/ Forms</i></p> <p>math, problem solving; spreadsheets</p>	<p>TechnoToon</p> <p>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.</p> <p><i>PowerPoint or Slides</i></p> <p>language arts; presentation, animation</p>	<p>TechnoSite</p> <p>Become a web designer. Construct a website that includes links to fun places for kids on the WWW. Will it get the <i>Kid Stamp of Approval?</i></p> <p><i>Google Sites</i></p> <p>language arts; digital citizenship, web design</p>	<p>TechnoRace</p> <p>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.</p> <p><i>Scratch</i></p> <p>game development; coding</p>
Grades 5/6	<p>TechnoEditor</p> <p>Edit a collection of stories. Master text, picture, and page layout formatting techniques to publish a high-quality publication.</p> <p><i>Word or Docs/Drawings</i></p> <p>language arts; word processing</p>	<p>TechnoSales</p> <p>Investigate dessert preferences. Graph and calculate data. Analyze the information to plan a bake sale. Report fundraiser details.</p> <p><i>Excel/Word or Sheets/Docs</i></p> <p>math, problem solving; spreadsheets, data management</p>	<p>TechnoTimeline</p> <p>Explain the significance of events by creating a unique graphic organizer that connects events along a timeline.</p> <p><i>PowerPoint or Slides</i></p> <p>social studies, history; presentation</p>	<p>TechnoTrivia</p> <p>Invent a game. Test knowledge about a topic. Set the answer key to calculate points. Analyze quiz results.</p> <p><i>Google Forms or Microsoft Forms</i></p> <p>math, social studies; data management</p>	<p>TechnoTurtle</p> <p>Develop and debug code to conquer mazes, paint pixel art, create a <i>Mad Lib Generator</i> and build a carnival game.</p> <p><i>IDLE Python 3</i></p> <p>math, language arts; programming</p>

Junior Technology Course Descriptions

TechnoArcade

In this course, students become game developers. They use Scratch coding blocks to create activities for kids. These include Jumble Tumble, Let's Jam, Mystery Island, and Lost Treasure. Upon completion, gaming fans visit an online arcade to share in the fun.



The technology course has 18 assignments that are divided into 6 Sessions:

- **Session 1 Arcade Hero**
In session 1, students become arcade heroes. They prepare to build an online arcade for kids. To start, they register for a free Scratch account to gain access to the online coding platform. Afterwards, they explore the program to learn about common tools and terminology. By connecting blocks to make a script they discover how to control a sprite.
- **Session 2 Jumble Tumble**
In session 2, students build Jumble Tumble. In this game a press of a key creates a mish mash of characters dashing and rolling across the screen. This chaotic scene uses Motion blocks to control movement. By sequencing the coding blocks, students discover how to direct and loop action. For an extra challenge, they can use if-then logic to create a silly outcome when two sprites crash.
- **Session 3 Let's Jam**
In session 3, students put together a band. They design a game that transforms the keyboard into a musical instrument. Players will enjoy leading a jam session as they tap away at the keys. Students wanting a personal touch can add a variable that allows the player to name the new music group.
- **Session 4 Mystery Island**
In session 4, students create Mystery Island. In this game, players explore an imaginary land. By tapping objects, they discover strange creatures. To build the code, Looks blocks are combined to change the appearance of sprites. Coders wanting to create an extra surprise can use random operators.
- **Session 5 Lost Treasure Part One**
In session 5, students begin to create the game Lost Treasure. In it, players collect items to score points. The player moves the mouse to pick up lost items and carries them to a specific spot. To start, students plan the theme of their game. Next, they insert a setting, hero, and treasure. With this complete, the game designers build code to control the movement of the hero. Sounds and Looks blocks combine to add excitement to the game play.
- **Session 6 Lost Treasure Part Two**
In session 6, students finish designing the game Lost Treasure. They create a variable to keep score. Using the wait until coding block, they build a script that ends the game when all hidden items are found. An optional activity has students create a timer to have players race against the clock. Upon completion, a tester plays the game.

Extension Activities:

Explore the Scratch Community, Dash and Crash, Pick a Band Name, Surprise Me, Add a Game Title, Create a Timer

Technology Skills: Programming

Technology Integration: Computer Science, Mathematics

Software Applications: Scratch

TechnoCandy

In this course, students develop a plan to boost candy sales. They investigate a problem by conducting a survey and researching candy packaging. A spreadsheet is used to organize, calculate, and graph data. Based on the evidence students recommend a solution in a written report. Optional activities challenge students to explore formulas, learn advanced graphing techniques, or design a candy package.



The technology course has 13 assignments that are divided into 6 Sessions:

- **Session 1 About Spreadsheets**
In Session 1, students are introduced to spreadsheet terminology. To learn about the program, students play spreadsheet Bingo. This game has students identify cell references, navigate in a worksheet, enter data, fill cells with color, and select multiple cells. It is a fun way to learn essential spreadsheet skills.
- **Session 2 Conduct a Color Survey**
In Session 2, students are given a problem to solve. A candy company is losing sales. Their number one candy is no longer number one. A study of the problem shows that children like the taste of the candy, but they say it is boring to eat because the colors are not fun. Students conduct a survey to learn more about what colors kids like. The survey results are entered into a spreadsheet. The data will be analyzed in upcoming sessions.
- **Session 3 Graph the Color Survey**
In Session 3, students produce a graph of their survey results. They make a bar graph. The color of the bars, chart area, and titles are then formatted to look attractive. Upon completion, students print the worksheet so that they have a complete record of their survey results. They will use this information in upcoming sessions to develop a plan to make the candy number one again. An optional activity explains how to copy the survey worksheet and transform the data into different graphs to determine the most suitable type.
- **Session 4 Research Candy Packaging**
In Session 4, students continue gathering information for the candy company by studying packaging. Students estimate the number of colored candies contained in the average package of a chosen candy and record their predictions in a spreadsheet. Students then count and record the actual data. Using the sorting feature, data is displayed in different views. Furthering their spreadsheet skills, students customize text within cells and add an image to create a professional looking document.
- **Session 5 Graph Packaging Results**
In Session 5, students make a comparison chart of the candy packaging research results. Using the skills learned in previous sessions, they make a bar graph. Once it is finished, they format the bar color, background, and labels so it looks great. Students then study the graph and summarize the results. An optional extension activity explores practical applications for pie and line graphs.
- **Session 6 Write a Report**
In Session 6, students develop a plan to make the candy number one again. They explain their idea in a report. The document summarizes the research findings and outlines a solution to the problem. If time permits an optional extension activity has students create a new package design for candy. It should attract customers' attention causing them to grab it off the store shelf.

Extension Activities:

Have Fun with Cell References, Experiment with Sum, Explore Chart Types or Advanced Chart Editing, Explore Pie and Line Graphs, Draw Packaging, Conduct a Poll or Survey*

Technology Skills: Spreadsheets, Word Processing, Graphics

Technology Integration: Language Arts, Mathematics, Visual Arts, Business Studies

Software Applications: Excel, PowerPoint, Word | Sheets, Slides, Docs, Forms

*Note: Survey activity in Google version only.

TechnoEditor

In this course, students assume the role of an editor. An editor is someone who makes changes to written material to prepare it for publication. Using Microsoft Word or Google Docs, students learn essential word processing skills that allow them to revise a collection of stories written for children. An exploration of text, picture, and page layout formatting techniques allow them to edit stories, comics, and poetry.



The technology course has 17 assignments that are divided into 6 Sessions:

- **Session 1 Edit the Front Cover**
In session 1, students are introduced to a word processing program. They learn how to perform basic word processing tasks such as how to select, format, and delete text. They apply this knowledge to edit the front cover of the book, "A Collection of Stories Written for Children".
- **Session 2 Edit a Poem**
In session 2, students continue to edit the book, "A Collection of Stories Written for Children". As an editor, students apply their knowledge of formatting to make the descriptive words in the poem, "A Fun Day in the Sun", look like their meaning. Afterwards, students learn how to insert a picture and format the appearance to make the poem look spectacular.
- **Session 3 Edit a Story**
In session 3, students add interest to the story "The Unbelievable Trip to the Store". They learn how to insert and format an online picture. Then they apply these skills to illustrate remarkable events including seeing a car with an elephant on its roof, witnessing a monkey in front of the store door, and glimpsing a frog riding on the back of a bird. This "unbelievable" story will teach students picture formatting techniques.
- **Session 4 Edit a Comic**
In session 4, students continue their job as editors. This time, they are editing the content of a comic strip. To prepare for this activity, they must first learn how to draw and format shapes and WordArt. Once students can apply their skills confidently, they create a funny comic that will make the children reading it laugh and smile.
- **Session 5 Cut, Copy, & Paste**
In session 5, students learn how to use the cut, copy, and paste commands to edit a story. To begin, students engage in a practice exercise. Once they have mastered these basic editing commands, they apply their knowledge to edit the story titled "The Copy Cats."
- **Session 6 Final Edit**
In session 6, students prepare the storybook "A Collection of Stories Written for Children" for publication. To begin, they edit the document to correct any spelling or grammar errors. Afterwards, they use a checklist to verify that the document is ready for publication. Last minute changes are made to the book. Once it is perfect, the document is shared with others.

Extension Activities:

Get Help, Adjust Line Spacing*, Setting Page Margins, Crop an Image*, Adjust Color and Artistic Effects*, Get Creative with WordArt, Even More Editing Tools*, About the Office Clipboard*, Insert Page Numbers

Technology Skills: Word Processing, Graphics

Technology Integration: Language Arts

Software Applications: Word | Docs, Drawings

**Note:* Select extension activities are not available for all product versions.

TechnoInternet

In this course, students have fun exploring the Internet. This online expedition allows them to safely discover the wonders online as well as learn the importance of responsible digital citizenship. The assignments revolve around an imaginary world. Students can travel to the Visitor's Center, e-Library, e-Media Center, e-Playground, e-Mail Depot, or e-Café. Each destination is tracked by adding a marker to an Internet map. Use this course to create a foundation for future learning.



The technology course has 19 assignments that are divided into 6 Sessions:

- **Session 1 At the Visitor's Center**
In Session 1, students begin their e-Journey. To prepare for their trip they attend an orientation meeting. At the meeting they select the destinations where they would like to visit, plan a route, and gather their Internet map. Once they are prepared for their journey they launch a web browser. The first stop is the Visitor's Center. At the center, students have the option of visiting the Safety Booth to learn about Internet Safety, Search Engine Station to take a brief tour of the Internet using search engines, Favorites Center to learn how to return to a location using bookmarks, and the School to locate homework helper websites. Grab your Internet map. It is time to embark on an exciting e-Journey!
- **Session 2 In the e-Library**
In Session 2, students travel to the e-Library to acquire valuable information sources. There they wander the shelves in search of encyclopedias, atlases, dictionaries, and thesauruses. Once familiar with the location of useful reference materials they turn their attention to locating other informative websites. The sheer volume of materials requires them to learn tips for assessing if a source is trustworthy. These strategies are then used to determine if a website is a reliable source. Shush! You are entering the e-Library!
- **Session 3 In the e-Media Center**
In Session 3, students take an excursion to the e-Media Center. There they discover a collection of photos, videos, and maps. This assortment of media is examined to learn more about the material that can be found on the Internet. It is time to click around to discover great stuff on the Internet!
- **Session 4 In the e-Playground**
In Session 4, students have fun at the e-Playground. They grab some headphones to listen to their favorite song on the Sound Stage. Next, they go over to the Webcam Observatory where they view live images from around the World captured by webcams. Afterwards they venture to the Arcade to play online games. There are so many great places to have fun on the Internet. Experience the Excitement!
- **Session 5 In the e-Mail Depot**
In Session 5, students take a trip to the e-Mail Depot. Here they communicate with friends by sending electronic messages from the e-Mail Post Office. To prepare for this part of the e-Journey, students consider the benefits to e-mail, review e-mail guidelines, take a safety quiz, and learn about netiquette. Afterwards, students learn how to send, read, reply, forward, and delete e-mail messages. In addition, they practice sending attachments. If time permits, students can visit the Ecard Shop to send greetings to friends and family members. Exchange greetings with friends!
- **Session 6 In the e-Café**
In Session 6, students meet in the e-Café. This portion of the e-Journey takes them into the realm of chat and social media. Before they can start to mingle with friends online, students learn information about cyberbullying, guidelines to keep them safe, and communication tips. Once familiar with how to behave as a responsible digital citizen, they have the option of visiting either the Chat Room or Social Media Place to socialize with friends.

Extension Activities:

Get Homework Help, Read News on Current Events, Survey the Map Collection, Study Online Shopping, Study Online Banking, Visit the Ecard Shop, Explore the Blogosphere

Technology Skills: Digital Citizenship

Technology Integration: Foundation for Future Learning

Software Applications: Web Browser

TechnoJournal

In this course, students are introduced to word processing by creating a personal journal. They express ideas and describe experiences by writing a series of entries. Students reflect upon a recent event, make a note of favorite things, and list personal wishes. The text on each journal page is formatted and pictures are added to produce an eye-catching booklet. Reader responses to the entries are logged to celebrate the accomplishment.



The technology course has 9 assignments that are divided into 6 Sessions:

- **Session 1 Explore Word Processing**
In Session 1, students are introduced to journaling. They examine a sample journal to identify the types of entries they will be writing. Next, they explore the program window and discover popular commands. An optional activity has students locate keys on the keyboard. This task is ideal for beginning typists.
- **Session 2 Create a Journal Cover**
In Session 2, students apply essential word processing skills to create a simple journal cover. It will include a title, student name, and an image. This task provides an opportunity to experiment with text formatting and picture styles.
- **Session 3 Recall a Special Event**
In Session 3, students write their first journal entry. It is about a memorable past event. Sentence starters jumpstart thinking, such as 'Yesterday I', 'A funny thing happened', or 'I was surprised'. Students learn how to filter online pictures to insert a clipart and adjust the text wrap. This page will look great!
- **Session 4 List My Favorite Things**
In Session 4, students expand their word processing skills to write a second journal entry. It includes a bulleted list of favorite things such as sports, animals, candy, or video games. To make the information easier to read, students explore bullet styles and line spacing options. Afterwards, they insert an image for each item on the list. As an extra challenge, students format the content to fit on one page.
- **Session 5 Wish and Dream**
In Session 5, students write their final journal entry. It is a numbered list of wishes. Sentence starters act as a source of inspiration, such as " I wish my superpower was', 'I wish I could meet', or 'I wish I could visit'. To make the page eye-catching, students explore text effects. They also learn how to adjust object order to layer images to produce unique illustrations. If time permits, an optional activity provides suggestions for writing additional journal entries.
- **Session 6 Publish the Journal**
In Session 6, students publish their journal. To make sure the document is error-free, they spell check the entries. Next, they use a checklist to verify all writing tasks are complete and the pages are easy to read. Afterwards, they insert page numbers and then print the file. Once published, students select a favorite entry and share it with a teacher, parent, or a friend.

Extension Activities:

About the Keyboard, Journal Writing Ideas

Technology Skills: Word Processing

Technology Integration: Language Arts

Software Applications: Word | Word Online | Docs

Note: Sequence of assignments varies slightly between the Microsoft and Google versions.

TechnoPresenter

In this course, students deliver an informative speech. To start, they study a sample slideshow to gain insight into the purpose of a presentation. Next, they apply an inquiry-based approach to generate a meaningful research question. Students then investigate their topic. Using presentation software, slides are created that apply graphic elements such as bulleted lists and tables to organize facts. To prepare for public speaking, students compose a set of notes to accompany each slide. Upon completion, they communicate their findings to an audience.



The technology course has 10 assignments that are divided into 6 Sessions:

- **Session 1 Get Ready to Public Speak**
In Session 1, students learn about public speaking. They begin by examining the reasons people give oral presentations. Next, they take a quiz to rate their readiness to speak in public. Following this, students analyze a sample slideshow, to understand how visual aids can engage the audience, as well as support the speaker. If time allows, students can also participate in an optional activity where they work in teams to perform skits that demonstrate the impact of body language on communication.
- **Session 2 Design a Title Slide**
In Session 2, students choose a topic of personal interest for an informative speech. They begin by selecting a question related to their chosen topic for further research. An organizer helps to record findings. Next, students create a title slide for their presentation. By applying a theme, they ensure that the visual aid maintains a professional appearance. Next, students explore text formatting and picture styles to add a personalized touch to the design. An optional activity is also available, which guides students on how to insert a short video related to their topic to enhance audience engagement.
- **Session 3 Highlight Key Points**
In Session 3, students arrange information into a bulleted list on a slide. The content is rephrased to highlight key points and capture the audience's attention. Speaker notes containing additional details are included. Students enhance their slides by inserting images or diagrams that reinforce their message. An optional activity demonstrates how to animate text to control the presentation's flow of information.
- **Session 4 Summarize Facts in a Table**
In Session 4, students present information to an audience by summarizing details using a table format. Speaker notes offer additional information about one intriguing or unexpected fact mentioned on the slide. To enhance readability, students format the table style and align the cells appropriately. They then explore the use of shapes and WordArt to emphasize key points. An optional activity involves creating a graphic organizer to present information concisely.
- **Session 5 Rehearse the Presentation**
In Session 5, students get ready to deliver an informative speech with a slideshow as a visual aid. They begin by reviewing a checklist to ensure that all slides contain the necessary content. They practice the presentation, referring to either digital or printed speaker notes. An optional activity uses rehearsal groups to build students' confidence in public speaking by presenting to a small audience.
- **Session 6 Present to an Audience**
In Session 6, students deliver an informative speech or lecture on a chosen topic. They use a slideshow to educate the audience and hold their attention. After the presentation, students engage with the audience by answering questions. Optional activities explain how to use annotation tools, such as a laser, pen, or highlighter, to emphasize key points during the presentation or how to host an online discussion.

Extension Activities:

Body Language Skits, Insert a Video, Work as a Team*, Animate Information, Create a Graphic Organizer, Group Presentation Rehearsal, Use Annotation Tools*, Ask an Expert*

Technology Skills: Presentation

Technology Integration: Language Arts, Social Studies, Science, Geography, History, Health

Software Applications: PowerPoint, Word | PowerPoint Online, Word Online | Slides, Docs

*Note: Select extension activities are not available for all product versions.

TechnoRace

In this course, students become game developers. They build an imaginary world using Scratch coding blocks. This online rescue mission has players race against time to collect points. Loops, conditionals, and variables combine to produce original game play. Upon completion, gaming fans test the story action. For coders wanting an extra challenge, they can customize animation, create flashing backdrops, or increase difficulty level.



The technology course has 21 assignments that are divided into 6 Sessions:

- **Session 1 Start from Scratch**
In session 1, students are introduced to Scratch, an online coding platform. To start, they explore the program to learn about common tools and terminology. Once familiar with the programming environment, students compete in a racing adventure. Afterwards, they experiment with the code to alter the player's experience. This exploration provides a foundation for building their own game.
- **Session 2 Become a Game Developer**
In session 2, students become game developers. They invent a storyline for a rescue mission. In it, the player races against time to reach a goal. Along the way they must collect treasure and avoid obstacles. Once students have a plan, they begin to build the game board. First, they insert sprites onto the stage to act as the player, treasure, obstacle, and goal. Next, they use the Paint Editor to create an imaginary world. Afterwards, they build a simple script that will play theme music throughout the game.
- **Session 3 Let's Get Moving**
In session 3, students create game controls. The fun starts with an exploration of Motion blocks. They build a script that moves the goal sprite, so it attracts attention. Next, the game developers transfer their knowledge to build controls using the arrow keys. Once the player can move around the imaginary world, students learn how to use logic to prevent walking through objects. Students in need of a challenge can build a script that teleports or launches the player at hyper speed. It is time to get moving!
- **Session 4 Avoid Obstacles to Win**
In session 4, students test the player's skill by restricting their movements. To begin, they code a looping script that moves a sprite on the stage so that it temporarily blocks the player. Next, the game developers design code that causes the player to slow down if it touches the obstacle. With this script complete, students apply their knowledge to stop the game when the player reaches its goal. For those wanting to add even more interest, they can switch backgrounds when two sprites collide, or the game is over.
- **Session 5 Collect Treasure**
In session 5, students design scripts that allow the player to collect points. The first task is an exploration of the Looks blocks to change the appearance of treasure, so players take notice. Next, students learn about variables. They apply this knowledge to calculate points when a player touches an object such as a coin or jewel. To enhance the game, students can elect to use the Paint Editor to customize the animation of a sprite.
- **Session 6 Time is Up**
In session 6, students complete the game by adding a timer to increase the difficulty level. They apply their knowledge of variables to build scripts that track time. When a limit is met the game ends. Upon completion, students invite others to test the story action and provide feedback. It is going to be a race to the finish!

Extension Activities:

Digital Footprints in Scratch, Upload a Sprite, Jump to Hyper Speed, Flash a Backdrop, Paint a New Costume, Add Comments

Technology Skills: Programming

Technology Integration: Computer Science, Mathematics

Software Applications: Scratch

TechnoResearch

In this course, students develop research skills as they create a Fact Card. To start, students brainstorm a topic and plan their research project. Next, they use strategies to retrieve quality information from reliable sources. The facts are then processed using paraphrasing techniques to transform an outline into a one sheet report. The publication is shared with others as a part of a Fun Fact Card Collection. Optional activities challenge students to develop skimming and scanning techniques, practice advanced research strategies, arrange facts in a table, and recognize sources of information. The goal is to teach skills that are transferable to any research project.



The technology course has 12 assignments that are divided into 6 Sessions:

- **Session 1 Select a Research Topic**
In Session 1, students prepare to create a "Fun Fact Card", a concise one-page summary about a particular topic. To begin, students review a list of research skills and select areas of interest. They then study sample fact cards to understand how information is organized. Afterward, they brainstorm ideas for their own fact card. Using Wikipedia, they conduct initial research on their chosen topic, which serves as a starting point for narrowing their focus. An optional activity teaches skimming and scanning techniques.
- **Session 2 Build a Research Outline**
In Session 2, students construct a research organizer. It offers a framework with three headings to categorize facts. It also includes sections for a glossary and listing sources. Suggestions for popular topics are provided to help students divide their research into manageable parts. Following this, students use an online encyclopedia to gather basic facts. They organize the facts under the appropriate headings. An optional activity explores the importance of including primary and secondary sources of data.
- **Session 3 Search for Facts**
In Session 3, students research a topic using Google Search. They learn how to effectively use keywords and the description to choose a relevant site from the search results. They then assess the trustworthiness of the source by conducting a Trust Test. This method is employed to gather facts from two reliable sources. Additional guidance is provided on narrowing results by domain type, such as government sites, reputable publications, or research-based television shows. An optional activity offers further strategies for Google searches, while another provides tips for recording citations.
- **Session 4 Create a Fact Card**
In Session 4, students convert their research organizer into a fact card. To begin, they duplicate the file. They then use the copy to rephrase the information into their own words. They eliminate redundant facts, condense text for clarity, and rearrange the content into a logical sequence. The emphasis is on writing sentences that are easy for children to read. The fact card will be formatted in the following session.
- **Session 5 Fact Card Design**
In Session 5, students enhance the design of the fact card. They adjust the font, size, and style of one of the headings, then apply these changes to the remaining headings. Next, they emphasize the glossary by highlighting terms, adding bullets, adjusting line spacing, and applying shading. Information sources are indented. Following this, students improve the overall layout by adding a border, setting margins, and changing the page orientation. Students include images for visual appeal. An optional activity explains how to organize content into columns or a table.
- **Session 6 Share the Fact Card**
In Session 6, students compile a collection of "Fun Fact Cards". They ensure the information is well-organized and easily readable using a checklist. Students then print their cards and exchange them with classmates. They explore a variety of topics by selecting cards from the collection. Finally, students reflect on their research experience, identifying skills they have acquired and those they will apply in the future.

Extension Activities:

Save Time! Skim and Scan, Primary and Secondary Sources of Information, Explore Google Search, Cite Sources of Information, Arrange Fact Card with Columns and/or Tables

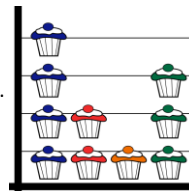
Technology Skills: Digital Citizenship, Word Processing

Technology Integration: Language Arts, Social Studies, Science, Geography, History

Software Applications: Word | Word Online | Docs

TechnoSales

In this course, students plan a bake sale to raise money. This task requires them to investigate food preferences and analyze financial data to make decisions about the fundraiser. Findings are organized into a report with graphs, to show why their decisions will make the bake sale a success.



The technology course has 20 assignments that are divided into 6 Sessions:

- **Session 1 Introduction to Spreadsheets**
In session 1, students are introduced to spreadsheet terminology. To learn basic skills, students play "You Found my X-Cell". This game has students identify cell references, navigate in a worksheet, enter data, fill cells with color, format the appearance of text, change the alignment, apply borderlines, and select multiple cells. It is a fun way to learn essential spreadsheet skills.
- **Session 2 What Desserts Do Students Prefer?**
In session 2, students learn how to use spreadsheets to make decisions about their upcoming bake sale. To make this fundraiser a success it is essential that the dessert sold is a popular item. To answer the question "What desserts do students prefer?" students conduct a survey. The results are organized into a worksheet and then placed into a column graph. The data is then analyzed to determine the dessert item that students prefer. Will it be cupcakes, muffins, or cookies?
- **Session 3 Session 3 Are There Differences Between Desserts Girls and Boys Prefer?**
In session 3, students continue to analyze the results of the Dessert Preference Survey. To answer the question, "Are there differences between desserts girls and boys prefer?" a double column graph is used to compare the types of desserts both like to eat. This graph will help students to select a bake sale item that everyone will enjoy. By studying the graph, they will be able to make a decision that will ensure success.
- **Session 4 What Dessert Flavors Do Students Like?**
In session 4, students must decide the flavors of dessert to have at the bake sale. This information is important because there needs to be plenty of items that people like. They investigate "What Flavor of Dessert do Students Like?" The results are organized into a worksheet and then placed into a pie graph. The data is then analyzed to determine the flavor students should sell. Will it be chocolate, vanilla, or strawberry?
- **Session 5 How Many Desserts Do You Need?**
In session 5, students calculate the number of desserts required for the sale. This information is important because there must be enough items to sell to raise a certain amount of money. To answer the question, "How Many Dessert Items Do You Need?" past sales are studied. The sales information is organized into a worksheet and placed into a line graph. The data is then analyzed to estimate the average money earned in previous sales. This information is used to set a financial goal. Afterwards, formulas are created to calculate a fair price, amount of baked goods needed, and the number of items each student needs to bake. By using math to collect information, students can make good decisions that are sure to make the bake sale a success!
- **Session 6 Bake Sale Report**
In session 6, students produce a report about how to make the bake sale a success. Using Microsoft Word or Google Docs, they explain their decisions about the sale. They describe the purpose of the sale, the item to be sold, financial goal, price of each item, total number of baked goods needed, and the amount each student in the class will need to bring to the sale. Afterwards, the report is edited to correct spelling and grammar errors. Upon completion, it is sent to the printer for publication.

Extension Activities:

Spreadsheets and You, Change the Sheet Tab Color, Add Pictures into a Bar Graph*, Add Data Labels*, Change the Chart Type, Formatting Tips for Pie Graphs, Different Formulas-Same Result, About the Sale

Technology Skills: Spreadsheet, Data Management

Technology Integration: Mathematics, Computer Science

Software Applications: Excel, Word | Sheets, Docs

**Note:* Select extension activities are not available for all product versions.

TechnoSite

In this course, students become web designers. They construct a website that includes links to fun places for kids on the World Wide Web. Throughout the design process, students pay attention to the ease of navigation, overall appearance, and quality of the content. This will ensure their web pages will get the Kid Stamp of Approval.



The technology course has 22 assignments that are divided into 6 Sessions:

- **Session 1 Be a Website Critic**
In session 1, students become website critics. Before they can analyze web pages on the World Wide Web, they are introduced to Internet terminology. Afterwards, they examine websites and rate them according to ease of navigation, appearance, quality, and safety. They will use their knowledge of what makes a "kid-approved" website when they create their own web pages in the upcoming sessions.
- **Session 2 Develop Search Strategies**
In session 2, students learn various search strategies to help them find information fast on the World Wide Web. They apply this knowledge to locate a wide range of items. These skills will be applied in the upcoming session when students find high-quality websites to include on their own web pages.
- **Session 3 Become a Web Designer**
In session 3, students become web designers. To prepare for the task, they view an example website that has hyperlinks to interesting places on the World Wide Web for kids. Students examine the characteristics and rate the ease of navigation, appearance, quality, and safety. Next, they use the Internet to gather resources for their own website. The content of each page is planned using the Website Organizer.
- **Session 4 Design a Home Page**
In session 4, students start to make their website using Google Sites. They begin by constructing a Home Page that includes a banner, title, and description. They use Layouts to add blocks of information about the topics.
- **Session 5 Build Web Pages**
In session 5, students continue to build their website. They follow instructions to insert several web pages. Each one is about a specific topic and will contain hyperlinks to fun places for kids on the WWW. Content on the Home page is joined to each web page to make it easy for visitors to navigate.
- **Session 6 Publish a Website**
In session 6, the young web designers publish their websites to the World Wide Web. To prepare, students edit the content and appearance using a checklist as a guide. Next, they have a peer review their website to test each hyperlink. Once the website is ready for viewers, they publish the website and share the link with classmates.

Extension Activities:

Examine Web Browser Settings, Discover Internet Resources, Add a Logo to the Header, Insert an Image Carousel, Add ALT Tags

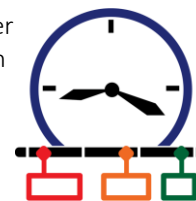
Technology Skills: Web Design

Technology Integration: Computer Science, Language Arts, Media Arts, Geography, History, Social Studies

Software Applications: Google Sites

TechnoTimeline

In this course, students create a timeline that summarizes significant events. The graphic organizer will consist of information organized in chronological order. Each event will be analyzed to gain an appreciation of its historical importance on people and future events. To start, students study sample timelines for inspiration. Next, they research a topic and record findings using an organizer. Once the important moments have been pinpointed, a graphic organizer is used to create a visual display. Upon completion, the sequence of events is shared with others.



The technology course has 9 assignments that are divided into 6 Sessions:

- **Session 1 What Is a Timeline?**
In Session 1, students step into the role of historians as they get ready to construct a timeline featuring significant events. To understand the creative possibilities, they study samples on a range of topics. These include a renowned inventor, a historic expedition, an About Me autobiography, and milestones in flight. Next, they select an idea for their own timeline. A list of suggestions aid students in identifying a personal area of interest.
- **Session 2 What Events Are Significant?**
In Session 2, students research their topic to uncover key historical moments. These could be firsts, remarkable achievements, milestones, or events that acted as catalysts. They use an organizer to record pertinent information, including the date and a brief description of each event. An optional activity is available to assist students in determining significance.
- **Session 3 Place Events in Chronological Order**
In Session 3, students construct a timeline using presentation software. They start by customizing the slide size, allowing for a better display of a series of events. Next, they add a title and apply a background to the slide. Then, students use a graphic to sequence dates and events on the timeline. To enhance the visual appeal, they experiment with layout and design tools. Optional activities involve connecting slides to provide additional details about a special event, or a workshop to introduce drawing tools.
- **Session 4 Highlight Key Events**
In Session 4, students explore how to format shapes and online pictures to emphasize information in their timeline. They experiment with fill, outline, and effects to create a unique design. Optional activities guide students to save images from the Internet and insert them onto the slide to highlight important moments, or how to crop an image to highlight important moments.
- **Session 5 Gain Peer Feedback**
In Session 5, students collaborate to enhance their timeline. They begin by evaluating their own work in terms of design, layout, and content using a checklist. After this self-assessment, they partner with a peer, who reviews the timeline. The peer editor provides feedback by posting a comment describing what they like and offering a suggestion for improvement. Comment starters are provided to help students phrase their feedback. This feedback is then used to make revisions.
- **Session 6 Discuss Historic Events**
In Session 6, students present their timelines. To start, they print the file to create a class bulletin board. Next, they deliver the information in a slideshow format to a small audience. Rather than reading every word on the slide, they provide a summary and highlight one or two key moments in the timeline. The assignment includes topics for discussion to provide students with suggestions for their presentation.

Extension Activities:

Is it Significant? Zoom to Feature a Special Event*, Drawing Workshop*, Highlight Events Using Saved Images*, Crop a Picture to Illustrate an Event*

Technology Skills: Presentation, Word Processing

Technology Integration: Geography, History, Social Studies

Software Applications: PowerPoint, Word | PowerPoint Online, Word Online | Slides, Docs

**Note:* Assignment titles and sequence vary slightly between the Microsoft and Google versions. Select extension activities are not available for all product versions.

TechnoToon

In this course, students create a graphic story in the style of a cartoon or animated comic strip. To start, they learn about writing conventions and watch sample stories as a source of inspiration. Students then apply their creativity to construct their story with text boxes, images, callouts, starbursts, and WordArt. Transitions are inserted between slides to divide the scenes. Animation is applied to objects to sequence the timing of events. Upon completion, the graphic story is set to play automatically. Challenging extension activities support learning with optional assignments such as advanced animation techniques and exporting as a video.



The technology course has 9 assignments that are divided into 6 Sessions:

- **Session 1 Become a Digital Storyteller**
In Session 1, students become digital storytellers. They explore the genre by examining how elements such as text boxes, callouts, shapes, and basic images are combined to tell a narrative. To inspire their creativity, they view sample cartoons. These include "What is It?", "My Dream", and "Super Dog". Each of these examples offers a distinct and innovative approach to digital storytelling."
- **Session 2 Plan a Digital Story**
In Session 2, students develop a plan for their digital story. They sketch their ideas into a storyboard to arrange the sequence of events. An optional activity offers suggestions for characters, settings, and plots. Once prepared, students craft their front cover. By experimenting with background options including color, gradient fills, textures, and patterns, they discover how to create a cartoon aesthetic. Following this, they explore formatting options to produce a title with a text box featuring a unique outline and shape effect. These graphic design skills will be applied in upcoming sessions to illustrate each scene in their story.
- **Session 3 Set the Scene**
In Session 3, students begin by introducing the story to viewers. They create a slide with a text box that describes what is happening. They select an online picture for their slide background, setting the scene for their narrative. Suggestions are provided to help them search for an ideal image. Next, they then choose their main character, who will use a callout to speak. An optional activity explains how to save a picture from the Internet to find a specific clipart for their character in the story.
- **Session 4 Illustrate the Comic Strip**
In Session 4, students illustrate each scene in their story. To start, they learn how to arrange object order and group shapes. They apply these graphic design techniques to combine WordArt with shapes to depict sounds like splat, whoosh, thud, or ka-pow to make their cartoon look authentic. As an optional activity, students boost their picture editing skills by exploring advanced styling, rotation, and cropping features.
- **Session 5 Animate the Story Action**
In Session 5, students animate each scene in their story. First, they apply transitions between slides to divide the action between each strip of the comic. Then students animate individual slide objects to sequence storytelling, guided by animation tips. An optional activity introduces advanced techniques, such as combining entrance, emphasis, and exit effects, as well as adjusting the order and timing of events.
- **Session 6 Share the Digital Story**
In Session 6, students present their digital story to an audience. To prepare, they use a checklist to review the content, design, and animation. After completing revisions, students set their cartoon to play automatically. They then participate in a toon-a-thon, where the entire class watches each other's cartoons. Optional activities explain how to print the slides as a comic book and convert the file to a video.

Extension Activities:

Generate a Story Idea, Use Images from the Internet, Picture Editing Workshop, Animation Workshop, Print Your Comic, Make a Video

Technology Skills: Presentation

Technology Integration: Language Arts

Software Applications: PowerPoint | PowerPoint Online | Slides

TechnoTurtle

In this course, students become game designers. They use Python and the Turtle library to conquer mazes, paint pixel art, create a Mad Lib Generator, and build a Carnival Game. The fun begins when students edit code to gain an understanding of the structure of Python scripts. Once familiar with basic concepts, the young programmers are introduced to debugging, loops, variables, and conditional logic. Ignite an interest in programming with meaningful activities designed for beginners.



The technology course has 30 assignments that are divided into 6 Sessions:

- **Session 1 Python, Turtles and Bugs**
In this session, students become programmers. To start they learn how the Python programming language is used in daily life. Next, they visit the Turtle library to study the commands and make predictions about their function. They test their ideas by modifying a program to control what it draws. Once familiar with running a Python program, students add bugs to the code in order to identify and fix common errors.
- **Session 2 Conquer the Maze**
In this session, students control the movement of a Turtle through a series of mazes. The fun begins when the young programmers write their first script. It marches a Turtle around the screen by moving forwards, backwards, and turning. Once they have mastered this set of commands, students are challenged to develop a script that will guide a Turtle through a maze. Can they solve the puzzle?
- **Session 3 Draw Pictures**
In this session, students write code to draw pictures. To start, they learn how to plot a point on the canvas using x and y coordinates. They apply this knowledge to stamp a unique design. Next, the young programmers follow instructions to design a robot by combining lines, rectangles, circles, dots, and symbols. Once familiar with how to control the Turtle's drawing tools, students build their own program to draw a picture.
- **Session 4 Design Colorful Spirographs**
In this session, students paint stunning artwork. To start, they learn code that repeats a set of instructions forever or for a specific number of times. Next, they complete a series of exercises to discover how to construct looping geometric shapes called spirographs. Once students are familiar with designing patterns, they use the Random library to produce colorful creations.
- **Session 5 Create a Mad Lib Generator**
In this session, students design a word game, called a Mad Lib. It has players provide a list of words that are used to complete a silly sentence or story. To prepare for this coding task, students learn about variables by chatting with the computer. Next, they edit a Mad Lib party invitation to discover how to join variables and text together to form sentences. Once familiar with the structure of the code, they program their own wacky word game.
- **Session 6 Invent a Carnival Game**
In this session, students become game designers. They combine Python and Turtle programming commands to produce a Carnival Game. To start, they learn about if, elif, and else. Once familiar with conditional logic they invent a game that prompts the player to pick an option to win a prize. Optional challenges enrich the design such as looping a flashing message or showing a picture of their winnings. Get ready for fun. Step right up to win a prize!

Extension Activities:

Imagine Life Without Coding, Dot-to-Dot Fun, Customize the Stamp, Rain Cats and Dogs, Build a Word Game, Guess a Number

Technology Skills: Programming

Technology Integration: Math, Language Arts, Visual Arts, Social Studies

Software Applications: IDLE Python 3

TechnoTrivia

In this course, students design a fun trivia quiz. Using Google or Microsoft Forms, they test their friend's knowledge about a topic. There is no need to keep score, since an automated system calculates points for each person and sends the results. Extension activities have students host a Battle of the Brains, team up to build a Trivia Game, make a Pick your Own Ending story, include a video, review a collection of fun quizzes, customize the theme, and manually mark a short answer question.



The technology course contains 15 assignments that are divided into 6 Sessions:

- **Session 1 Test Your Wits**
In session 1, students test their wits. To jump start the fun, they are introduced to trivia quizzes by completing the Wacky Animal Quiz. Once familiar with the structure and purpose of this type of game, students rate their quizmaster type. Get ready to entertain friends and family with odd, silly, and interesting questions.
- **Session 2 Build a My Country Quiz**
In session 2, students build a trivia quiz about their country. It will test knowledge about the capital city, flag, landmarks, facts, and national symbols. Students will learn how to pose questions, set the point value, and create an answer key. This activity provides an understanding of Forms features and the structure of a quiz.
- **Session 3 Plan Your Trivia Quiz**
In session 3, students become quizmasters. They design a trivia quiz for their family and friends to play. To start, they brainstorm topic ideas. Once they have selected a theme, they formulate a plan. An organizer is used to record the questions, correct answers, and points. Students apply helpful tips to generate thought-provoking questions.
- **Session 4 Design a Trivia Quiz**
In session 4, students build their trivia quiz using Google or Microsoft Forms. They follow their plan to create the questions, scoring system, and answer key. Upon completion, the quizmasters conduct tests to verify the game is working properly. They then assess the quality of the trivia quiz using a checklist to highlight areas for improvement.
- **Session 5 Host a Trivia Time Event**
In session 5, students take part in a Trivia Time Event. Students invite others to take their quiz. They then test their knowledge by taking quizzes made by classmates. Who is a know-it-all?
- **Session 6 Study Trivia Responses**
In session 6, students analyze players' answers to the trivia quiz. They view a summary of responses. Graphs for each question illustrate the items that players found easy and difficult. Based on their evaluation, they make recommendations on how to change the trivia quiz to make it even better.

Extension Activities:

Visit Quiz Central, Ask a Short Answer Question*, Share an Opinion*, Pick Your Own Ending Story, Customize the Theme, Ask a Question About a Video, Collaborate to Build a Trivia Game, Battle of the Brains Quiz

Technology Skills: Data Management

Technology Integration: Language Arts, Social Studies, Science, History, Geography, Math

Software Applications: Google Forms, Sheets, Microsoft Forms, Excel

**Note:* Select extension activities are not available for all product versions.

Helpful Resources

Refer to these helpful resources to learn more about how to use TechnoKids technology courses in your classroom.

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