55 TECHNOLOGY PROJECTS

for the Digital Classroom

Volume I of II

55 TECHNOLOGY PROJECTS

FOR THE DIGITAL CLASSROOM

Everything you need to integrate computers into K-8 classes

Volume I

2020
V2.3

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What Educators Need to Know to Use This Book

"It's not what the teacher does that's important. It's what the teacher gets the children to do."

Phil Schlecty said that, but it could have been any teacher. Effective education is a classroom culture where students lead in-depth exploration of authentic topics. Two elements make that happen: the integration of technology into learning and the incorporation of projects into lessons--PBL.

Sounds straightforward. Technology plus projects equals learning. It moves learning from a two-dimensional content area into a multidisciplinary setting.

That's worth repeating: By incorporating *computers, software, network-based systems, internet-based programs and research, email* into the classroom, education moves beyond books and lectures in the exploration. The melding of technology and projects fills the holes left when books aren't available, providing equity in scholastic offerings. Students then take responsibility for their schooling—to sleuth out answers to questions that arise in an everyday educational environment that are left behind by a static curriculum. They use higher order thinking which encourages individual accountability and performance-based assessments. It empowers active and experiential learning that is remembered years later. It engages student interest and motivates them to learn. It insists they dig deeper and provides the shovels and trowels to do it. What teacher wouldn't want that?

Project-based learning involves students in making the connections between rigor and relevance, demanding accountability in the classroom.

So, are you sold and now wondering, "Are there guidelines?" Read on.

Aligning to ISTE

Not all states align technology with education standards. Some weave tech into classes; some as a stand-alone.

Luckily, there is a set of standards recognized worldwide as authentic assessments of technology-education integration. These are the National Educational Technology Standards for Students, created by ISTE - the International Society for Technology in Education.

How to Use This Book

Projects included in this book are variously designed for a PC, laptop, Chromebook, or iPad. If you're using a different OS, you'll need to adapt the instructions.

"Leadership is the single most important factor affecting the successful integration of technology. This is true at the state level and at the school level. Schools which have made the most progress are those with energetic and committed leaders." *(from a study on tech integration).*

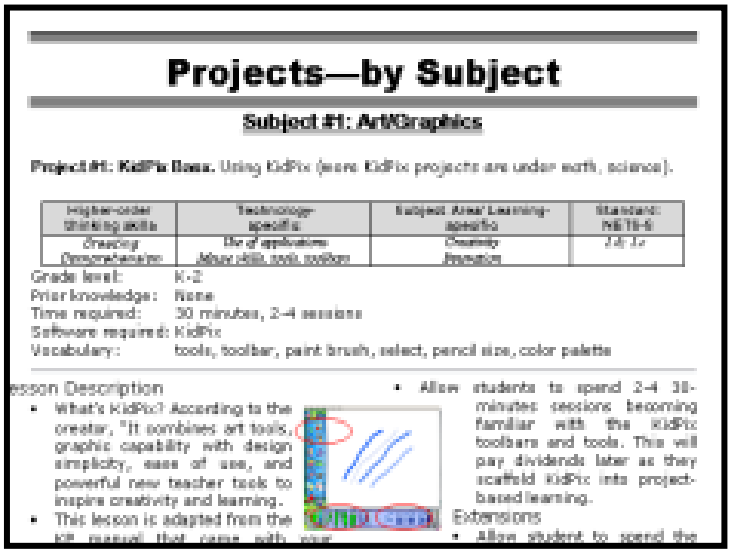
You are the leader. If you look help in using technology in the classroom, this book will guide you. Each lesson has been tested over a period of years in K-8 classrooms, fine-tuned to ensure an engaging learning experience that supports authentic questions and open collaboration within an integrated environment.

55 Technology Projects for the Digital Classroom (Volumes I and II) ties each lesson into four areas: 1) higher-order thinking, 2) technology skills addressed, 3) subject area/learning addressed, 3) and NETS-S standards covered. See the complete list of skills under 'Skills Taught', and the project list on individual lesson pages. Each skill is covered several times by the time you complete all projects.

Next, the one hundred ten projects in the two volumes are categorized three ways: 1) by subject, 2) by program (software), and 3) by grade level:

Projects by Classroom Subject

This section makes it easy to select the right project for a subject. Each includes:



Projects—by Subject

Subject #1: Art/Graphics

Project #1: KidPix Basa. Using KidPix (more KidPix projects are under math, science).

Higher-order thinking skills	Technology-specific	Subject Area/Learning-specific	Standard: NETS-S
Creating	The of applications	Creativity	2.d; 3.c
Communicating	Mouse skills, tools, toolbar	Animation	

Grade level: K-2
Prior knowledge: None
Time required: 30 minutes, 2-4 sessions
Software required: KidPix
Vocabulary: tools, toolbar, paint brush, select, pencil size, color palette

esson Description

- What's KidPix? According to the creator, "It combines art tools, graphic capability with design simplicity, ease of use, and powerful new teacher tools to inspire creativity and learning.
- This lesson is adapted from the KP manual that came with your

- Allow students to spend 2-4 30-minutes sessions becoming familiar with the KidPix toolbars and tools. This will pay dividends later as they scaffold KidPix into project-based learning.

Extensions

- Allow student to spend the

- A brief summary of the assignment
- Which grade level it is designed for
- Prior knowledge required, including projects in this series to complete prior to this one
- Time required
- Software required, as well as free alternatives and their download sites.
- Vocabulary required. Use these words in your teaching and require students to use them. By the time you finish 20-30 projects, students will speak geek.
- Higher-order thinking skills addressed
- Technology-specific skills taught
- Core subject supported
- NETS-S skills addressed
- Lesson Description—why it's taught and the pedagogy behind it

- Step-by-step lessons. What to teach when so students finish with the least frustration and greatest amount of excitement and discovery.
- Extensions—for deeper exploration
- Troubleshooting tips—from problems I and other technology teachers have experienced in the classroom and how we've solved them
- Examples of projects, including reproducibles for classroom use (grading rubrics, sample projects, checklists, etc.)

Projects by Software

Each lesson is categorized by the software required to complete it. This allows teachers to focus on only the programs available to them. If there's a free version offered on the internet, that address is included. To complete all projects, include:

- *Adobe Photoshop (or the free GIMP)*
- *Celestia and Google Earth*
- *Email and browsers*
- *Art/Drawing (KidPix)*
- *Spreadsheets (MS Excel)*
- *Word processing (Word)*
- *Slideshows (PowerPoint)*
- *Desktop Publishing (Publisher)*
- *Oregon Trail (or free online version)*
- *Keyboarding*

Projects by Grade

Each project is categorized by suggested grade level. This determination is made by projects, skills and training that must predate the project, student intellectual maturity, and class time required to instruct students on necessary technical skills. Attention was paid to providing teachers with a selection that fulfills 'typical' state educational standards. For example, there are twenty-one projects that correlate to composition, eleven to geography, ten to language arts, and so on.

Are You a Tech Professional or a Teacher?

There are two ways to use this book:

- As the lab professional, parallel to the core classroom teaching.
- As the teacher interested in integrating technology into your lessons

Either way—same goals, same plans, same pedagogy.

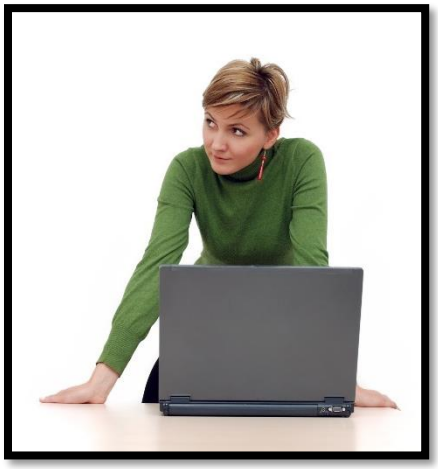
You're a teacher integrating technology into your classroom

You probably use a word processor to create student handouts, a desktop publishing program for the monthly newsletter, email to chat with parents and maybe a spreadsheet to track grades. You might even use the Internet to find cutting-edge lesson ideas. You are what is considered the Web 1.0 teacher—comfortable with technology for your use but struggling to integrate it into the classroom.

But this year, you want to add an active learning component to your lessons that will encourage students to ask authentic questions. You've seen examples of students using technology as part and parcel of the educational process. They're engaged. Learning is student-centered rather than teacher–centered, which means students take responsibility for their own learning, because they've taken ownership. And—here's the scary part—the teacher runs the technology integration into the lesson with assistance from a computer expert.

You're the Computer Lab or You're the Integration Specialist

You help teachers find ways to integrate technology into their classroom lessons. You teach computer skills in support of classroom projects in the classroom or technology is a stand-alone class—a 'pull out'—much as Spanish and PE. Use the projects in this book parallel to classroom instruction. What you teach will serve students through high school and beyond, with an emphasis on core software (MS Office, Google Earth, keyboarding, internet, email).



Collaborate with teachers on which projects best support their units of inquiry (i.e., a trifold on colonization to support the fifth grade unit of colonizing). Your job is to be sure students have the skills to complete the project. In kindergarten, you have a year's worth of skills. In fifth grade, you have a vast palette of abilities and programs at your disposal.

Each of the projects in this book can be incorporated by fifth grade. As an integration specialist, I manage about 35 tech projects a year in the nine grades, revolving to keep the program fresh.

Typical 45-minute Lesson

As you face a room full of eager faces, remember that you are a guide, not an autocrat. Use the Socratic Method—don't take over the student's mouse and click for them or type in a web address when they need to learn that skill. Even if it takes longer, guide them to the answer so they aren't afraid of how they got there. If you've been doing this since kindergarten, you know it works. In fact, by the end of kindergarten, you saw remarkable results.

When talking with students, always use the correct vocabulary. That's why I've included it on the lesson plan. Be sure to emphasize the vocabulary and expect students to understand it. Try the Vocabulary Board during one of the quarters/trimesters. Students love it and it highlights why they want to understand 'Geek Speak'.

- Students enter the room. They know to start each class by checking the 'To Do' list on the monitor, taking their seats. You're finishing up the last class but it doesn't matter. Students are responsible for starting the class.

- They start with 10 minutes of typing on the class typing program. Some days, they are directed to work on site words in Spelling City or another activity they can succeed at without teacher direction.
- Next may be one of three presentation activities (*Google Earth Board, Problem-solving Board from Book II in this two-volume series*, or *Vocabulary Board from Book II in this two-volume series*) that rotate throughout the year. Students have selected their topic and presentation date. Whoever is up for the day will teach the class and take questions. This takes 10-12 minutes.
- If it's the beginning of a month, I review assigned homework and take questions. If it's the end of a trimester, I review which skills they accomplished during the last three months.
- If we are starting a new project, I review it with them, take questions and we start. If they are in the middle of one, they use the balance of the class to work towards completion. I monitor activities, answer questions, help where needed.
- During their work, students are free to post vocabulary words they don't understand on the vocabulary board and problem-solving ideas on that board.

- Students who have completed the current project take advantage of 'sponge activities' from a topic of their choice, practice keyboarding for the upcoming speed quiz, or help a classmate struggling with a prickly skill. I include a variety of topical websites on the class internet start page. Students know websites on this page can be used during sponge time.

- Students who finish early may also access the class internet start page. to see what they might have missed in earlier classes.

Skills Taught

The following are critical skills every child should be familiar with and are covered by lessons in this book. Summarized, they include higher-order thinking (adapted from Bloom's Taxonomy of Education Objectives), technology-specific (in text boxes), learning-specific, and NETS-S Standards (National Education Technology Standards for Students.

Collaboration Skills

- Interact, collaborate and publish with peers, experts or others employing a variety of digital environments and media
- Foster skills important to leadership and group dynamics

- Effectively collaborate, using strong interpersonal skills
- Evoke personal, social, and civic responsibility
- Employ interactive communication
- Produce relevant, high-quality products

Email

- *Importance of a correct address*
- *Understand body of email (message area)*
- *Paste information into body of email*
- *Use proper netiquette*
- *Use attachments*
- *Use 'to', 'cc', 'subject line'*
- *Check 'sent' file*

Communication skills

- Understand and employ non-linear presentation of ideas
- Effectively use nonlinguistic representations (i.e., graphic representations, pictures and pictographs, mental pictures, 3D models)
- Graphically represent problems and solutions
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats
- Write clear, concise letters
- Follow correct protocol for writing paragraphs
- Contribute to project teams to produce original works and/or solve problems
- Create bullet lists to explain concepts
- Create outlines to organize ideas
- Exhibit cultural understanding and global awareness
- Use graphic organizers to explain complicated ideas
- Use multimedia to explain concepts
- Use visual images instead of words
- Display effective communication, collaboration, and interpersonal skills
- Display effective use of real-world tools
- Produce cogent, pithy, high-quality products

Desktop Publishing

- *Identify workspace parts*
- *Understand page layout—colors, shapes, mix of text and pictures*
- *Use templates*
- *Employ an eye for the three c's: color, communication and cohesiveness*
- *Add and delete pages*
- *Add and edit/align text*
- *Add a cover page, Table of Contents, sidebars, pull quotes*
- *Change document view.*
- *Insert, edit, delete frames*
- *Insert and/or change a picture*
- *Preview and print a document*
- *Save, close and reopen a document*
- *Select color and font schemes*
- *Use the Design gallery*

- Use focused and specific methods—multimedia, pictures, diagrams, music, sound, movement, etc., for multi-intelligence communication
- Grammar and Spelling
  - Understand protocols for letter writing
  - Know how to type sentences/paragraphs with correct grammar and spelling
  - Use the grammar and spelling tools available with the word processing software to improve your work
  - Know how to use tech vocabulary

Keyboarding

- *Type for speed and accuracy*
- *Correct spacing after a period, question mark, exclamation point, and comma.*
- *Sit up straight, good posture*
- *Center body with elbows at sides*
- *Position feet for balance*
- *Keep hands on home row, curved over keys, wrists off of keyboard*
- *Keep typing project to side of keyboard*
- *Keep eyes on screen or printed copy*
- *Use touch typing, with a smooth rhythm*
- *Know keyboard shortcuts*
- *Stretch fingers*
- *Use correct fingers—usually the one closest to the letter*
- *Use right thumb for spacebar*
- *Use shift key and caps lock correctly*
- *Use right little finger for enter/return*
- *Use left shift to capitalize right hand letters, right shift for left hand letters.*
- *Use right little finger for backspace/delete key*
- *Use left little finger for tab key*

Creativity and Innovation

- Employ creativity in problem solving
- Employ non-linear thinking
- Utilize graphic representation of ideas, problems, solutions
- Apply existing knowledge to new ideas, products and/or processes
- Create original works as a means of personal and/or group expression
- Identify trends and forecast possibilities
- Use models and simulations to explore complex systems and issues

Critical Thinking, Problem Solving and Decision Making

- Produce relevant, high-quality products
- Analyze a problem and identify solutions with logic
- Collect and analyze data to identify solutions and/or make informed decisions
- Employ creativity in problem solving
- Don't shy away from curiosity, creativity, risk taking

- Show effective use of real-world tools
- Follow directions
- Use a guided discovery of solutions and learning
- Employ high productivity prioritizing, planning, and managing for best results
- Employ higher order thinking and sound reasoning
- Know how to decode programs you haven't been taught
- Know how to select from various solutions

Spreadsheets

- *Use to turn data into information*
- *Analyze data in a problem-solving context*
- *Merge-center cells*
- *Use formulas*
- *Create and format graphs*
- *Create and save workbooks*
- *Enter/sort/format data*
- *Insert hyperlinks*
- *Format cells, columns, rows*
- *Format chart area*
- *Format plot area*
- *Label a chart, axes, legend*
- *Use print-preview to adjust size and layout of document*

- Identify and define authentic problems and significant questions for investigation
- Display inventive thinking, adaptability
- Display a bias for non-linear thinking
- Understand options for explaining concepts, reports, information (visually, etc.)
- Plan and manage activities to develop a solution or complete a project
- Pursue inquiry-based and project-based learning
- Employ self-regulated learning
- Use multiple processes and diverse perspectives to explore alternative solutions

Drawing

- *Add/edit text*
- *Develop eye-hand coordination*
- *Develop mouse skills*
- *Drag-and-drop*
- *Practice fine motor skills*
- *Select the right tool*
- *Understand 'undo'*
- *Understand drawing on the computer*
- *Use fills*
- *Use fonts, font sizes, font colors*
- *Use toolbars*
- *Work with text boxes*

Digital Citizenship

- Produce relevant, high-quality products
- Advocate and practice safe, legal and responsible use of information and technology

- Learn about computers and ethics, computers and society
- Demonstrate personal responsibility for lifelong learning
- Exhibit digital citizenship
- Know how to cite work from the internet
- Display personal, social, and civic responsibility
- Understand and employ safe use of the internet

Graphics

- *Resize/crop a picture*
- *Draw geometric shapes*
- *Format a picture*
- *Draw freehand*
- *Move a picture*
- *Use transparencies and recoloring*

Higher-order Thinking (adapted from Bloom's Taxonomy and the Marzano Model for Thinking Skills)

- Analyze:
  - See patterns
  - Organize parts
  - Recognize hidden meanings
  - Identify components
- Apply:
  - Use information
  - Use methods, concepts, theories in new situations
  - Solve problems using required skills or knowledge
- Comprehend:
  - Interpret facts, compare, contrast
  - Order, group, and infer causes
  - Predict consequences
  - Understand information
  - Grasp meaning
  - Translate knowledge into new context
- Evaluate:
  - Assess the value of theories

Slideshows

- *Add animation-custom animation*
- *Add hyperlinks*
- *Add music to a slide, the entire show*
- *Add pictures*
- *Add slide backgrounds*
- *Add transitions*
- *Add/delete slides*
- *Add/edit/align/format text*
- *Auto-advance slides*
- *Edit pictures, text boxes*
- *Graphically-represent ideas*
- *Navigate from slide-to-slide*
- *Understand slide layout (place savers)*
- *Understand visual learning*
- *Use backgrounds*
- *Use critical thinking skills*
- *Use print preview to print*

- Make choices based on reasoned arguments
- Verify value of evidence
- Recognize subjectivity
- Compare and discriminate between ideas

- Build knowledge
  - Remember dates, events, places, major ideas
  - Observe and recall of information
  - Master subject matter
- Understand:
  - Generalize from given facts
  - Relate knowledge from several areas
  - Predict and draw conclusions
  - Use old ideas to create new ones

Word Processing

- *Edit, format, enter, wrap text*
- *Create original work at keyboard*
- *Use tools and toolbars*
- *Create numbered lists, bullet lists*
- *Find synonyms*
- *Grammar check*
- *Import graphics*
- *Insert borders*
- *Insert, format, resize graphics*
- *Insert headers and footers*
- *Use print-preview before printing*
- *Check page layout (margins, work area, heading-title-body-closing)*
- *Spell-check*
- *Use graphic organizers to explain concepts*
- *Use keyboard shortcuts*
- *Use right-click menus*
- *Change line spacing*
- *Create macros to automate work*
- *Use the cursor to add and edit*
- *Create a table, add/delete rows*
- *Insert watermarks*

Internet

- Know how to find and enter a website address
- Know how to use the browser's toolbar
- Know how to use hyperlinks to maneuver through a website
- Know how to use back-forward buttons, home button
- Know how to add to favorites and use favorites
- Know how to intelligently use the internet for research, how to credit sources, how to pick the most reliable sites, how to refine hits using limiters, extensions and qualified sources
- Know proper internet netiquette
- Know the parts of a web address

Presentation skills

- Know how to prepare and make a class presentation
- Know who your audience is and how to keep the audience interested

- Be sure your main point is clear and concise, you have good posture, make eye contact, speak with fluency and expression (no fillers, proper vocabulary, voice and pitch)

Research and Information Fluency

- Plan strategies to guide inquiry
- Take surveys and communicate data
- Locate, organize, analyze, evaluate, synthesize and ethically use information from a variety of sources and media
- Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
- Process data and report results

Google Earth

- *Copy locations to another file under 'My Places'*
- *Create a tour*
- *Find latitudes and longitudes*
- *Fly-to a location*
- *Mark locations*
- *Measure distances*
- *Save images to 'My Places'*
- *Save locations under 'My Places' to another location*
- *Use Google Earth Community*

Technology Operations and Concepts

- Create wallpaper using a drawing program or pictures from a file folder
- Understand and use technology systems
- Select and use applications effectively and productively
- Troubleshoot systems and applications
- Transfer current knowledge to learning of new technologies
- Copy from-paste to
- Know correct use of equipment, computer etiquette
- Drag-and-drop data/info between programs
- Close a program
- Be able to use print preview, print and save
- Make wallpaper for desktop
- Use mouse skills: click-hold-drag-drop, double-click, point, scroll, single-click, use of mouse buttons
- Know how parts of a computer connect
- Understand right-click menus
- Know the difference between save and save-as

- Know how to save to network drive, external drive
- Understand technology vocabulary
- Know how to turn computer/monitor on
- Use a program you haven't been taught—how to intuit what to do
- Use flash drives and other external drives
- Use icons to open a program
- Use scroll bars to maneuver through a page
- Use Task Manager to shut down a program or the computer
- Use caps lock key
- Use shift key to capitalize a letter
- Use clock to find the date
- Use taskbar, toolbars, menu bars
- Use Word Pad, Notepad

Image Editing

- *Understand 'Actions' tool*
- *Understand 'History' layer*
- *Add frames*
- *Add text*
- *Employ auto fixes*
- *Understand when to use which clone tool*
- *Employ different cropping tools for different uses*
- *Format pictures*
- *Use artistic renderings*
- *Use History, Art brush*
- *Use paint brushes*

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- Project 32: Color My Grammar (in Word)
- Project 37: Oregon Trail
- Project 45: Where Am I (with MS Word)
- Project 46: Landforms Table in Word

Technology Basx
- Project 27: Online Blogs

Fourth-Seventh grade

Google Earth
- Project 39: Google Earth Board
- Project 41: Where is That? (Google Earth)

Internet
- Project 13: Art Online
- Project 14: Sponge Activities for Graphics
- Project 35: Sponge Activities for Vocabulary
- Project 48: Sponge Activities for Geography
- Project 54: Sponge Activities in History

Keyboarding
- Project 55: Keyboarding in the Classroom

MS Excel
- Project 12: Creating Shapes with Excel

MS Publisher
- Project 22: A Holiday Flier in Publisher
- Project 23: A Holiday Calendar in Publisher
- Project 28: My Storybook—in Publisher
- Project 30: A Cover Page in Publisher
- Project 31: A Title Page in Word
- Project 49: California Missions Magazine
- Project 51: This Day in History/ in My Life

MS Word
- Project 4: Divide and Conquer
- Project 15: A Holiday Letter in Word
- Project 17: A Holiday Story in Word
- Project 31: A Title Page in Word

Project 32: Color My Grammar (in Word)
Project 33: Grow Your Story Using Word
Project 47: Ecosystems Outline in Word

Oregon Trail
Project 37: Oregon Trail

Technology Basx
Project 3: I Can Make My Own Wallpaper

Fifth-Eighth grade

Google Earth
Project 39: Google Earth Board
Project 40: The Wonders of Google Earth
Project 41: Where is That? (Google Earth)

Internet
Project 13: Art Online
Project 14: Sponge Activities for Drawing
Project 27: Online Blogs
Project 35: Sponge Activities for Vocabulary
Project 37: Class Blog
Project 48: Sponge Activities for Geography
Project 54: Sponge Activities in History

Keyboarding
Project 55: Keyboarding in the Classroom

MS PowerPoint
Project 47: Tour the World

MS Publisher
Project 21: A Holiday Card in Publisher
Project 22: A Holiday Flier in Publisher
Project 23: A Holiday Calendar in Publisher
Project 24: A Holiday Newsletter in Publisher
Project 28: My Storybook
Project 30: A Cover Page in Publisher
Project 31: A Title Page
Project 50: American Revolution Magazine
Project 53: A Colonization Brochure

MS Word
Project 4: Divide and Conquer—Graphics
Project 15: A Holiday Letter I Word
Project 17: A Holiday Story in Word
Project 30: A Cover Page in Publisher
Project 31: A Title Page in Word
Project 32: Color My Grammar (in Word)
Project 33: Grow Your Story Using Word

Photoshop
Project 3: I Can Make My Own Wallpaper
Project 5: Photoshop Basx
Project 6: Quick Fixes in Photoshop
Project 7: Cropping in Photoshop
Project 8: Cloning in Photoshop
Project 9: Artistic Rendering in Photoshop
Project 10: Drawing in Photoshop
Project 11: Photoshop Actions; History Brush

Technology Basx
Project 4: I Can Make My Own Wallpaper

Projects—by Subject

Subject #1: Art/Graphics

Project #1: KidPix Basx I. Students learn about tools, toolbars, drag-drop, multi-media, menus—all tech basics

Higher-order thinking skills	Technology-specific:	Subject Area/ Learning-specific	Standard: NETS-S
Creating *Comprehension*	*Use of applications* *Mouse skills, tools, toolbars*	*Creativity* *Innovation*	*4a-b*

Grade level: K-3
Prior knowledge: None
Time required: 30 minutes, 1-2 sessions (take your time)
Software required: KidPix (or adapt for another drawing program)
Vocabulary: tools, toolbar, paint brush, select, drag-and-drop, color palette

Lesson Description

- According to the creator, "KidPix combines art tools, graphic capability, ease of use, and powerful teacher tools to inspire creativity and learning."
- This lesson, adapted from the KidPix program's manual, hones mouse skills and introduces the use of tools and toolbars.

Computer Activity

Note: This can be adapted to a variety of digital drawing tools.

- Have students open KidPix. Discuss the program. Discuss how drawing on the computer is different from paper.
- Select the pencil tool on the left side. Try all four associated tools (pencil, chalk, crayon, magic marker) at the bottom, as well as the shapes (filled and unfilled). Try different colors on the palette.
- Repeat with the paint brush.
- Skip the microphone, spray can and wacky tool for now.
- Have students spend 2-4 30-minute sessions becoming familiar with the KidPix pencil and paint brushes. You want them comfortable and confident enough to scaffold KidPix into project-based learning.

Extensions

•Students can spend the extra minutes at the end of class trying other tools of their choice—the paint bucket, spray can, stamps stickers—whatever catches their attention.

Troubleshooting Tips

- *I can't find the tool. (KidPix has many toolbars. Are you on the pencil/paint brush on the left side? Which tool is selected at the bottom? What about selections in the middle of the lower toolbar. So many choices, but that's what makes this classic children's drawing program so robust.)*

As students learn to draw digitally, they perfect mouse skills—drag-and-drop, left click, how to hold the mouse. Here are a few reminders that will help them develop good mouse habits as early as Kindergarten:

MOUSE CONTROL

Single Click:

Select

Double Click:

Open

Right Click:

Choices—Drop-down menu

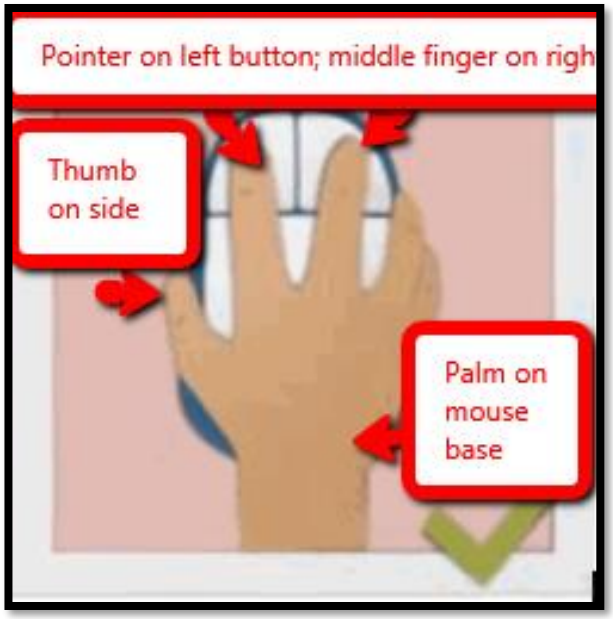
Websites to Teach K/1 Mouse Skills

Kindergartners get confused about right and left mouse buttons. Why wouldn't they? They've barely learned what those terms mean. I found an easy way to clarify:

ME: *"Right click with your mouse"*

STUDENT: *Student promptly clicks with their left mouse. I know–doesn't make sense. It does to them. They're happy to focus on the right hand and have no idea they need to go one level further.*

ME: *"The other right."*



Here are mouse websites to teach kindergartners and first graders how to use the mouse:

1. Bees and Honey
2. Drawing Melody
3. Mouse practice w/ the piano
4. Mouse practice
5. Mouse skills
6. Mouse Song
7. OwlieBoo–mouse practice
8. Wack-a-gopher (no gophers hurt)

Kids love puzzles and they're great for practicing mouse skills. Try these:

1. Digipuzzles
2. Jigsaw Planet
3. Jigsaw puzzles
4. Jigzone–puzzles
5. Jigsaw Puzzles

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Subject #2: Composition and Communication

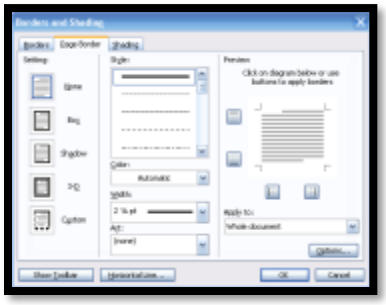
Project #17: A Holiday Story in Word. A review of MS Word writing skills emphasizing knowledge student has collected and established learning outcomes

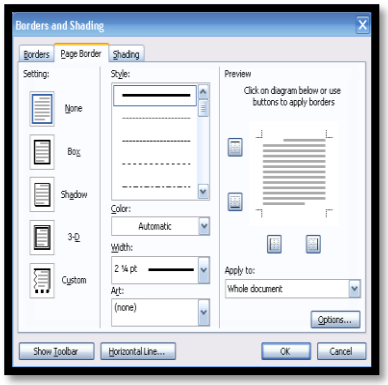
Higher-order thinking skills	Technology-specific:	Subject Area/ Learning-specific	Standard: NETS-S
Using knowledge student has learned	*MS word: change fonts/ colors/sizes*	*Letter-writing Grammar/spelling*	*1d, 4a, 4b*

Grade level: 2-7
Prior knowledge: Introduction to MS Word, Project 16: A Holiday Memory in Word
Time required: 25-45 minutes
Software required: MS Word
Vocabulary: font, font size, cursor, double space, heading, greeting, setting, plot, text box, call-out,

Lesson Description

- A holiday story or letter with pictures, border, varied fonts/colors/ sizes, and a WordArt title (for story).
- Second graders hone basics. Older grades add to Word skillset.
- Students work without teacher assistance as much as possible, relying on already-accumulated knowledge.





Computer Activity

Note: This works fine with other word processing programs, i.e., Google Docs.

- Open Word. Add heading (name, teacher, date on three lines), font size 12, Times New Roman.
- Double space between sections, i.e., heading and greeting. Student can select font size 14-36, any font, for balance of letter/story.
- Review parts of a letter—greeting, body, closing
- Review parts of a story: character, setting, plot, crisis, resolution.
- Have at least one paragraph, 3-8 sentences, depending upon grade.
- Challenge students to add:
  - art borders (see inset)
  - pictures (place cursor where image goes)
  - 5 fonts/color/sizes
- Review before printing. Clear red squiggly lines by correcting spelling
- Story must fill one page, but no more. Resize pictures as needed. Print preview before printing.

Extensions

- Add text box, call-out.
- Color the text box and call-out.

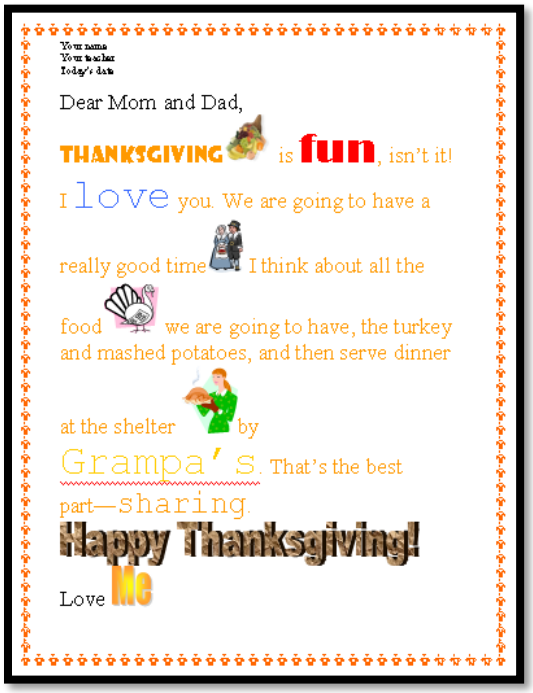
Troubleshooting Tips

- *To change font, size, color, click inside word and select font/size/color. This is a quick way without having to highlight the word.*
- *Trouble finishing up:*
  - *I can't exit (Alt+F4)*
  - *I can't print (Ctrl+P, file-print)*

Second Grade:

Third Grade:

Fourth-Seventh Grade:



Fifth-Seventh Grade:

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Subject #3: Geography

Project #38: Introduction to Google Earth Google Earth can be used for many classroom activities. It is a favorite of even my kindergartners. I start by showing them how to pan in and out, drag to move the globe, change the perspective of the earth's surface, use the built in tour or one I add. I have fifth graders create a tour that the youngers then watch.

Higher-order thinking skills	Technology-specific:	Subject Area/ Learning-specific	Standard: NETS-S
Analyzing, evaluating	*Adding graphic to KidPix, saving image in Google Earth,*	*Critical thinking, research, information fluency*	*3a-d*

Grade level: K-4
Prior knowledge: None
Time required: 30 minutes
Software required: Google Earth (free download or use it directly from the web)
Vocabulary: demo, tour, greeting, bathymetry, 3D,

Lesson Description

- Google Earth is a virtual globe browser, drawing on thousands of satellite pictures to present our world. It is used by hundreds of millions of people, thousands of which contribute to its wiki tools for uploading data and info.

- Google Earth is a hugely popular program with students as young as kindergarten

Computer Activity

Note: If you don't have Google Earth, use your school's mapping program (i.e., Scribble Map).

- Take a tour of Google Earth. Discover the power of Google Earth. Allow time so students can stop and start, pan in and out, explore an interesting location.
- Next, show student how to use the 'fly to' field 

to designate a location. Type in, say 'Eiffel Tower' and push enter. Watch how GE flies around the world and pans into the location. Type in their address and visit a bird's eye view of their house.
- Explain mouse tools for GE:
- Use mouse scroll to pan in, out
- Use left click to stop panning.
- Click and drag the mouse scroll to change perspective.
- Click and drag the globe to move location
- Give students a list culled from classroom lessons and wonders of the world—or their suggestions. Have plenty of helpers for the younger students. Allow time to find the prescribed locations and explore the area. Encourage students to investigate.

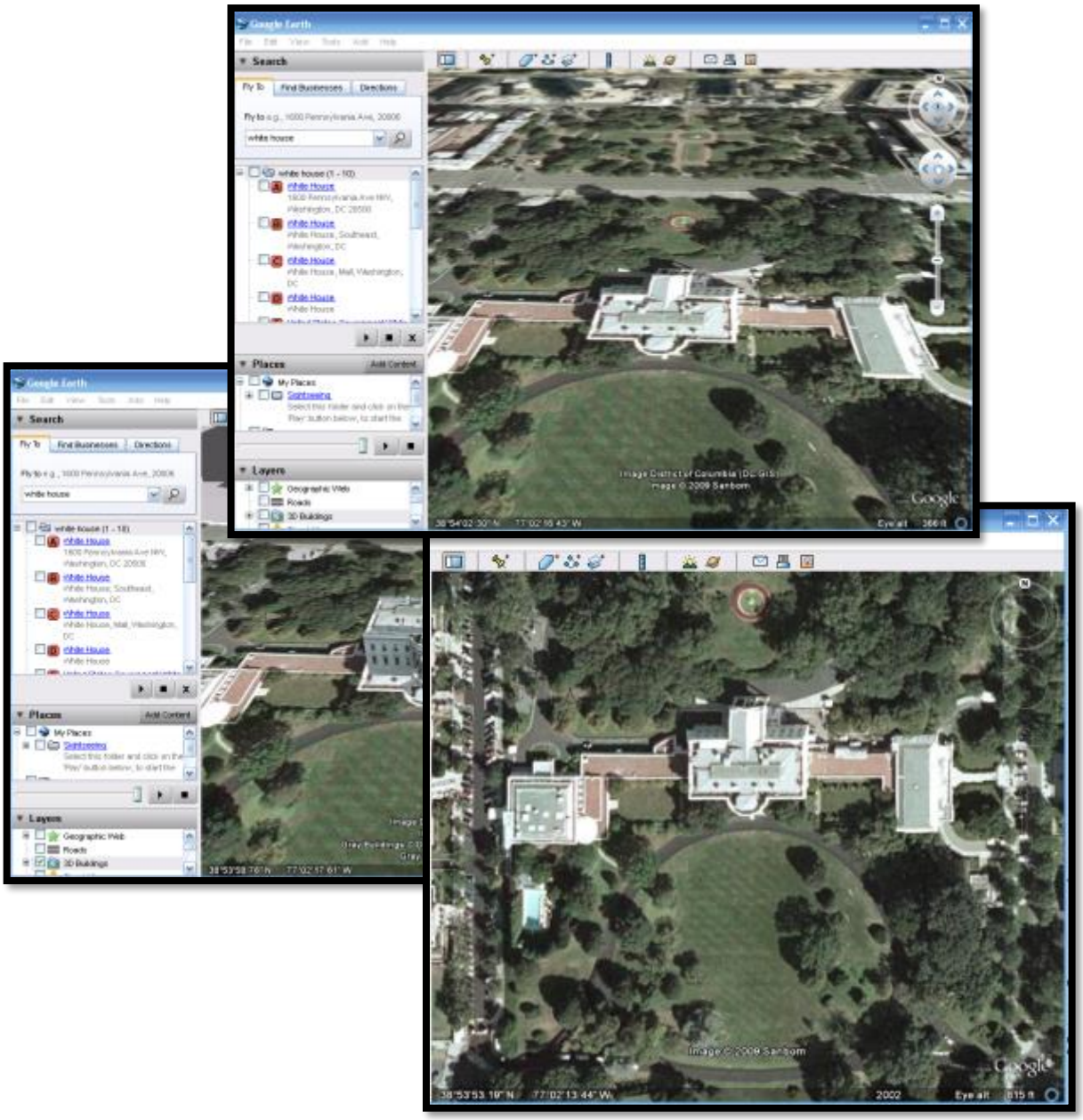
Extensions

- Show how to select '3D buildings' on the toolbar (under layers) and watch the buildings pop up into three dimensions.

- Try 'Street View' from the toolbar to see an eye-level view of the world (through the cameras)
- Try 'Sky' to tour outer space
- Try 'Google Ocean' to cruise the 3D bathymetry of our underwater world.
- Use 'flight simulator'—a free tool that allows students to fly around the world in an F16 or bi-plane. This is a favorite at my school.
- Add additional Google Earth skills for advanced learners (i.e., grids, measurements, marking locations)

Troubleshooting Tips

- *I type in a location and GE can't find it. (Add the city, state, country, or some combination of those. Or, go to 'Help—Google Earth Community' and find it there.)*




Use the ruler tool to find rough distances between points
Use the Flight Simulator—the jet or bi-plane
Ruler
Line
Path
Length:
2,358.09
Miles
Mouse Navigation
Clear
Use the daylight tool to watch dawn and dusk move across the globe.
Feb 8, 2009
6:51am
Image © 2009 TerraMetrics
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Google
Eye alt 5288.93 mi
Use the ruler tool to find rough distances between points

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