HOW TECHNOLOGY
Can Jumpstart
the Inquiry-based
FIFTH GRADE
CLASSROOM

5 Projects that Align with National Standards

Introduction

Today's classroom is all about authentic lessons that are inquiry-driven, student-centered, with technology that is critical but invisible—just another part of the lesson. They must scaffold current knowledge with new so students are comfortable as risk-takers whether they are digital natives or newbies. The new educational mandates require users to share, show evidence of learning, collaborate on outcomes, and publish their work.

The question we get often from teachers—both new and seasoned—is: How do you teach technology skills (i.e., the use of foundational programs like word processing and keyboarding) while integrating it into classroom units AND keeping student interest?

With the right resources, that's easy. We've put five of them together in this bundle for you. This is one part of the K-6 ***"How Technology Can Jump-Start the Inquiry-Based Classroom: 35 Projects That Align with National Standards".***

Teachers, you're going to love these lessons. They're easy to understand and implement, fascinating to the students you teach, and quick to accomplish what might seem to be the impossible goals of integrating and sharing.

If you own the [Structured Learning K-6 technology curriculum](), this book will be a favorite addendum. These lessons are practical strategies for 1) extending the 32-lessons contained in that seven-year curriculum, 2) differentiating instruction so it suits your unique group, and/or 3) focusing on web-based programs rather than installed software.

If you haven't committed to a K-6 technology curriculum, this book will provide lessons that help you comply with state and national education standards by 1) integrating technology into your school's K-6 classroom, and 2) providing methods to publish and share student work.

These five projects show you great ways to **align** your technology curriculum with ISTE national standards, **integrate** technology into class units of inquiry, and **teach** critical skills—here's the important part—*when students are ready to learn them* without taking your focus off the organic needs of your school's educational standards.

Who Needs This Book

You may be the Technology Specialist, the Coordinator for Instructional Technology, IT Coordinator, Technology Facilitator, Curriculum Specialist, Technology Director or the technology teacher for your school—tasked with finding the right computer project for each K-6 classroom unit. You have a limited budget, less software, and the drive to do it right no matter the roadblocks. How do you accomplish your job?

Or you're the classroom teacher, a tech enthusiast with a goal—and this time you mean it—to integrate the wonders of technology into lessons. You've seen it work. Other teachers in your PLN are doing it. And significantly, you are trying to comply with the requirements of Common Core State Standards, ISTE, your state requirements, and/or the IB guidelines that weave technology consistently into the fabric of all units of inquiry as a method of delivering quality education. How do you reach your goal?

Each of the lessons in this book includes practical strategies for integrating technology authentically into core classroom lessons. They are easily adapted to any number of subjects be they science, literature, history, math, reading, writing, critical thinking, or another. The focus is on easy-to-use online tools (with some exceptions) that are quick to teach, inquiry-driven, intuitive, and free. You introduce the tool, demonstrate the project, answer clarifying questions, and let students' curiosity loose.

Do you need this if you bought the **SL Technology Curriculum** with its 32 lessons or if you invested in Structured Learning's 110- lesson Technology Toolkit for K-8? In fact, this book was originally intended for you. The hundreds of schools across the country that use that curriculum contacted us and asked for it. Why?
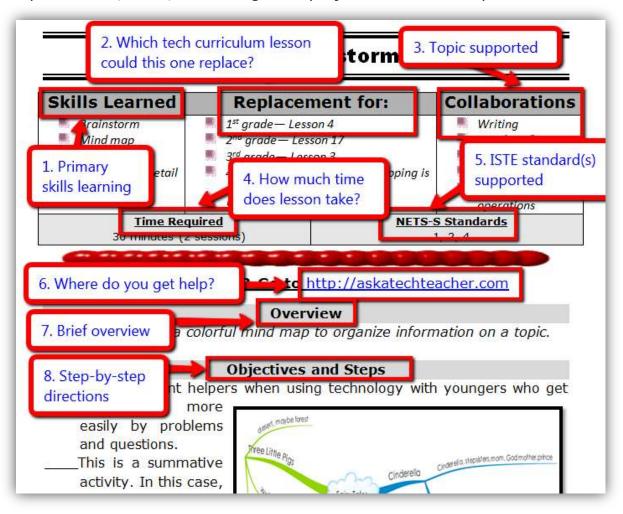
1. Their school didn't have some of the software suggested in the textbook (say, MS Publisher)
2. Their classes finished a lesson earlier than planned.
3. They needed 34 lessons instead of 32
4. Their school aligned with Common Core State Standards, which meant they needed more lessons that allowed for publishing and collaborating

5. They had a particular unit of inquiry that wasn't addressed in either the curriculum or toolkit
6. They wanted more web-based tools
7. Some had been using the curriculum for several years and simply wanted change.

This book is for you.

How to Use This Book

For each lesson, the organization is clear and intuitive, with sections to address the most important parts of what you need to deliver a comprehensive, clear, tech-integrated project. Here's a sample:

1. ***Skills Learned***—*This lists the primary skills learned through this lesson. These are technology skills and also skills best learned through the use of technology.*
2. ***Replacement for***—*If you're using the Structured Learning technology curriculum, this box tells you which of the thirty-two yearly lessons for that particular grade level can be replaced by this one and still deliver the goals of the K-6 Scope and Sequence (listed in the front of each textbook)*
3. ***Collaborations***—*This lists which classroom subject(s) can be supported authentically with this lesson.*
4. ***Time Required***—*This provides an estimate of time you should set aside to complete the lesson. If noted as 'repeat', do this lesson several times to reinforce learning.*
5. ***NETS-S Standards***—*This highlights which ISTE standards are delivered with the lesson.*
6. ***Lesson Questions? Go To***—*This link connects to a blog where you can ask for help or clarification on any book sold by Structured Learning—including this one—from teachers using this book. No other textbook publisher offers this. Of course, you can always email Structured Learning's in-house help at zeke.rowe@structuredlearning.net. (There really is a Zeke Rowe).*
7. ***Overview***—*This is the lesson's central idea.*
8. ***Objectives and Steps***—*This provides practical strategies for achieving the lesson's essential goals with step-by-step guidelines for accomplishing that.*

Take special note of the section called 'Replacement For'. This is where we suggest how the lesson fits into the SL Technology curriculum—which lesson it can replace/enrich while maintaining the continuity of the curriculum's scope and sequence (included at the beginning of each textbook).

In deference to the changing landscape of technology in education, these new lessons concentrate on web-based tools. That means they encourage collaboration among students, tools are mostly FREE (because they're web-based), and publication is a snap through websites, wikis, and blogs

Where for-fee software and products are used, we cross-reference free products that accomplish the same goals where possible. There will be some

adaptation required to make them work, but we selected those that are most compatible.

We've included blanks in front of each concept so you can check it off when completed. The nature of educational technology often precludes completing an activity in one sitting. It's useful to track where you ended so you can pick up there when you continue.

You'll find a lot of links in this book. They are **extras in the digital ebook**—like full color images and being able to search with Ctrl+F. To put them in the print version would take oh-so-much-space and ultimately be oh-so-confusing. If you would like a PDF of the book so those links are available, contact the [publisher](http://structuredlearning.net) (http://structuredlearning.net) to find out how to get a discounted PDF with your Proof of Purchase. If there are just one or two, visit the helpline (that's our [Ask a Tech Teacher](#) blog noted at the beginning of each lesson) and leave a comment on the most current article requesting the link. Be sure to include the book's name and the page number. We'll post it within 24 hours as the answer to your request.

A note: There are seven (I might say 'only seven'—a testament to how much technology has changed in just a few years) software-based projects—all designed for Windows-based PCs. If you have a different operating system (say, Linux or Mac), you'll need to adapt the instructions.

About the Authors

Structured Learning IT Team *is the premier provider of technology instruction books and ebooks to education professionals. Technology and keyboarding curriculums, how-to books, tips and tricks, a one-of-a-kind blog-based helpline—all the tools required to fulfill the tech needs of the 21ˢᵗ century classroom. All materials are classroom-tested, teacher-approved with easy-to-understand directions supported by online materials, websites, blogs, and wikis. Whether you are a new teacher wanting to do it right or a veteran educator looking for updated materials,* **Structured Learning** *and its team of technology teachers is there to assist you.*

Ask a Tech Teacher *is an award-winning resource* **blog** *run by a group of technology teachers. It has more than 60,000 visitors a month in search of resources and advice, offers oodles of free lesson plans, pedagogical conversation, website reviews and more. Its free newsletters and website articles are read by thousands, including teachers, homeschoolers, and anyone serious about finding the best way to maneuver the minefields of technology in education.*

Jacqui Murray *(lead Ask a Tech Teacher blogger) is the editor of SL's technology curriculum for K-sixth grade, creator of two technology training books for middle school, and four ebooks on technology in education. She is the author of* **Building a Midshipman**, *the story of her daughter's journey from high school to United States Naval Academy. She is webmaster for six blogs, an Amazon Vine Voice book reviewer, a columnist for Examiner.com, Editorial Review Board member for Journal for Computing Teachers, Cisco guest blogger, IMS tech expert, and a bi-weekly contributor to Write Anything. Her technology articles have appeared in hundreds of online newspapers and magazines.*

Fifth Grade

Lesson #1—Scratch for Fifth Graders

Skills Learned	Replacement for:	Collaborations
Pre-programming *Problem-solving* *Logical thinking* *Broadcast* *Higher-order thinking skills* *Coding*	*4th grade— Lesson 13* *5th grade— Lesson 3* *6th grade—Week 9-11*	*Math* *Literature* *Anything* *Critical thinking* *Decision making*
Time Required 40 minutes (up to 6 sessions		**NETS-S Standards** 2, 4

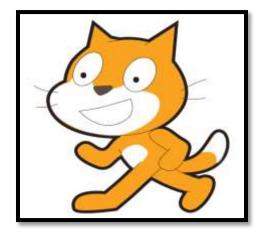## Lesson questions? Go to http://askatechteacher.com

Overview

Develop problem-solving and critical thinking skills while scaffolding comprehension of a core classroom unit.

Objectives and Steps

_____An important skill for future Middle School students is problem solving, to logically think through a situation and come up with the steps that will arrive at a solution.

_____That's where Scratch comes in. Scratch, a free program developed and distributed by MIT, is a user-friendly introduction to programming designed not so much to build a generation of computer programmers (although that would be fine) as to teach students logical and higher order thinking skills in a fun, motivating, and captivating way as they construct multimedia, animated projects like games, simulations, tutorials, and expositions. Scratch is easy to learn, enabling students to absorb these critical thinking skills while they think they're creating something else. Programmers know that users learn computer