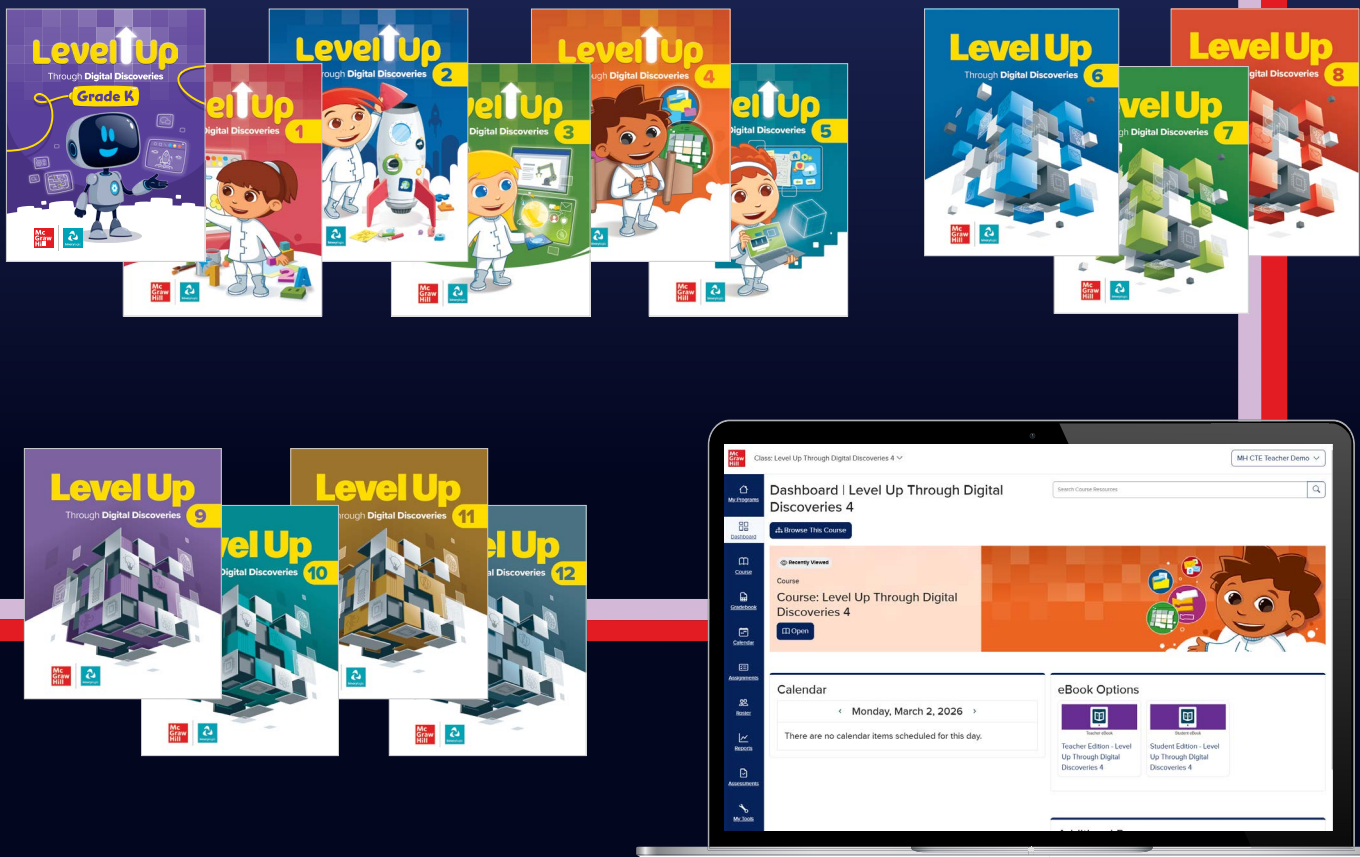
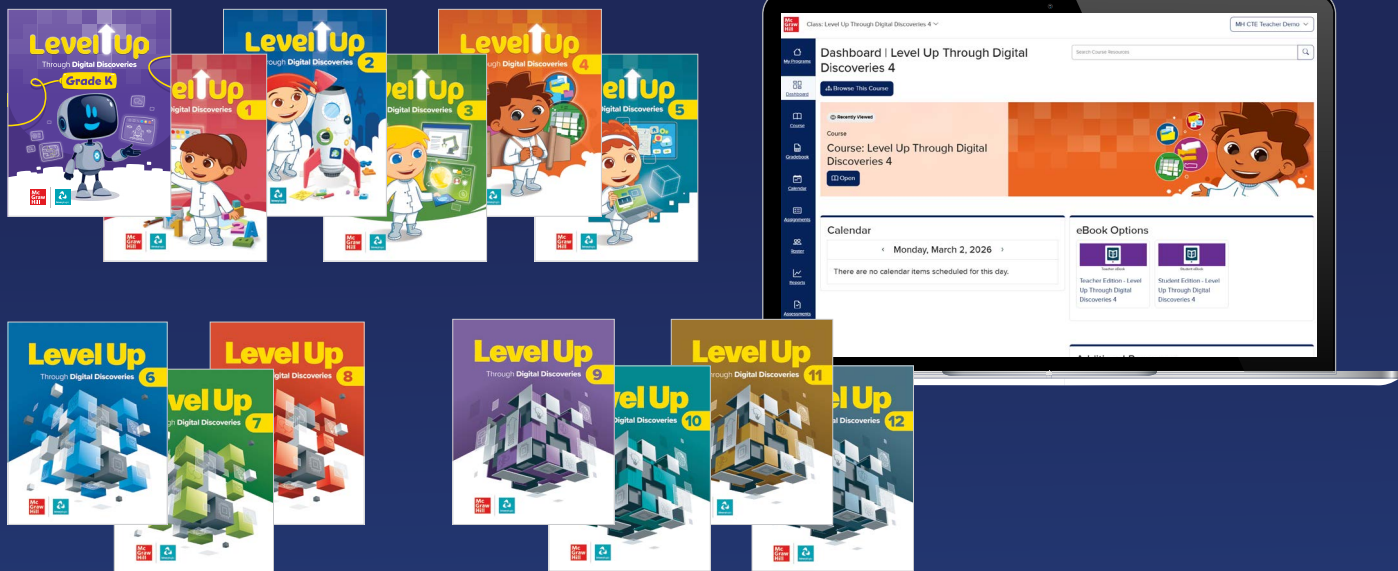


Level Up

Through **Digital Discoveries**

Develop **Computing Skills** and
AI Literacy from Grades K–12





Inspire a Future-Ready Generation of Learners

Cultivate computer science and AI literacy from grades K–12

- **A multi-grade approach:** Uses a comprehensive, progressive development to build ever-stronger understanding through each grade, moving students from foundational skills to advanced concepts.
- **Active learning:** Engages students through well-defined learning goals, hands-on activities, and project-based learning.
- **Modern and relevant:** Incorporates AI literacy, coding, cybersecurity, and robotics.
- **Digital literacy:** Explores the use and impacts of AI and cybersecurity, developing critical thinking for informed, responsible digital citizenship.
- **Flexible for how you teach computing:** Works for core classrooms, specials, electives, STEAM projects, after school programs, and more.

Aligned to:

- ISTE Standards
- CSTA K–12 CS Standards
- AI Literacy Framework

Level Up spirals curriculum across the following domains and topic areas:

DOMAINS

Data & Analysis

Computing Fundamentals

Coding & Programming

Productivity & Design

Communication & Collaborations

TOPIC AREAS

- | | | |
|---------------------------|--------------------------|---------------------------------|
| ✓ Information Technology | ✓ Computational Thinking | ✓ Digital Literacy |
| ✓ Artificial Intelligence | ✓ Computer Science | ✓ Cybersecurity |
| ✓ Data Science | ✓ Networking | ✓ Ethical & Social Implications |

Available in Print Worktexts, Digital, or a Blend of Both!

Why print worktexts?

- ✓ **A guide on the side**
When students are using a computer application, the *Level Up* book acts as a second screen.
- ✓ **Writing to learn**
Students writing by hand helps learning and retention.
- ✓ **Less screen fatigue**
Even if using a screen, short glances to the book relieve eye strain.
- ✓ **Learning ownership**
Students have a written, easy-access record of content and their notes.



Supports reading and writing practice!

Program Overview Contents

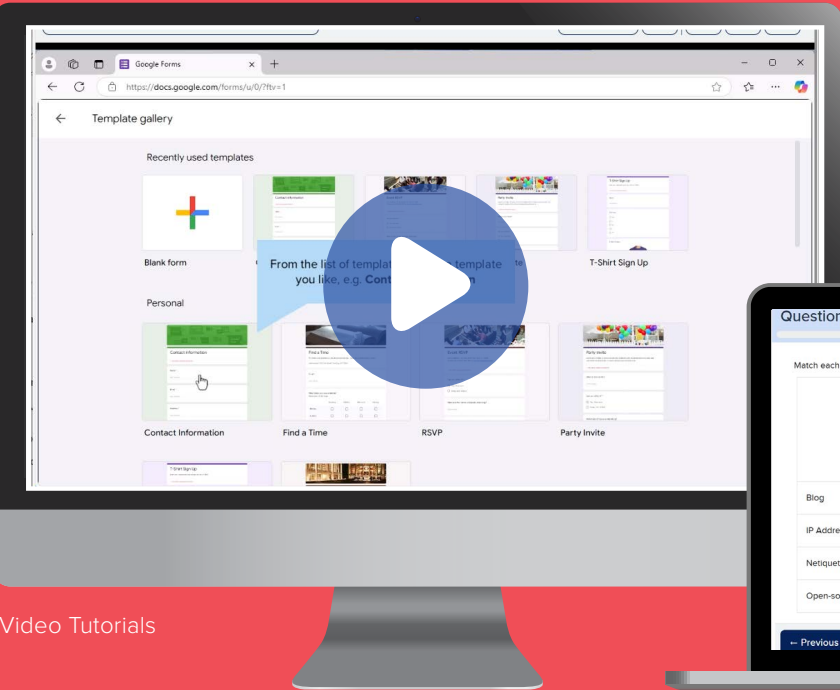
Introduction.....	1–2
Digital Experience	3
Teaching Support	4
Grades K–5	5–10
Grades 6–8	11–16
Grades 9–12	17–18



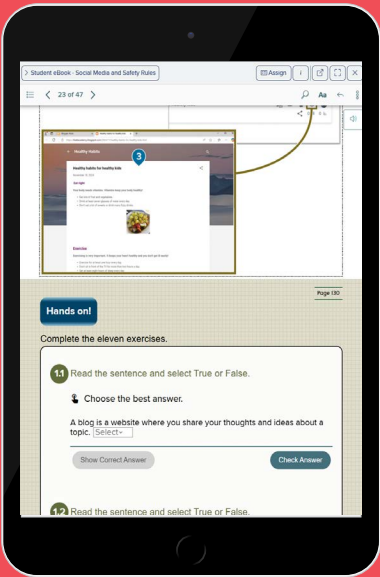
Video demo, standards correlations, and more information at mheducation.com/LevelUp-K12.
Password: MHE

Engage, Learn, and Assess with Digital

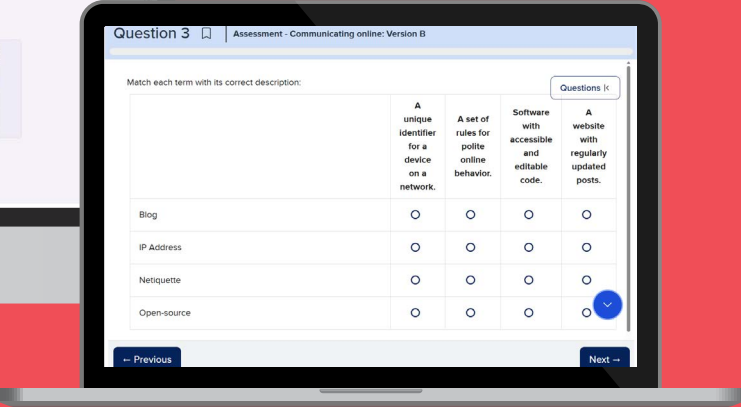
The digital resources create a rich learning experience designed to be used as a standalone or with the printed worktext. They are easy to access and easy to use.



Video Tutorials



Interactive eBook with Embedded Assessment



Assessments

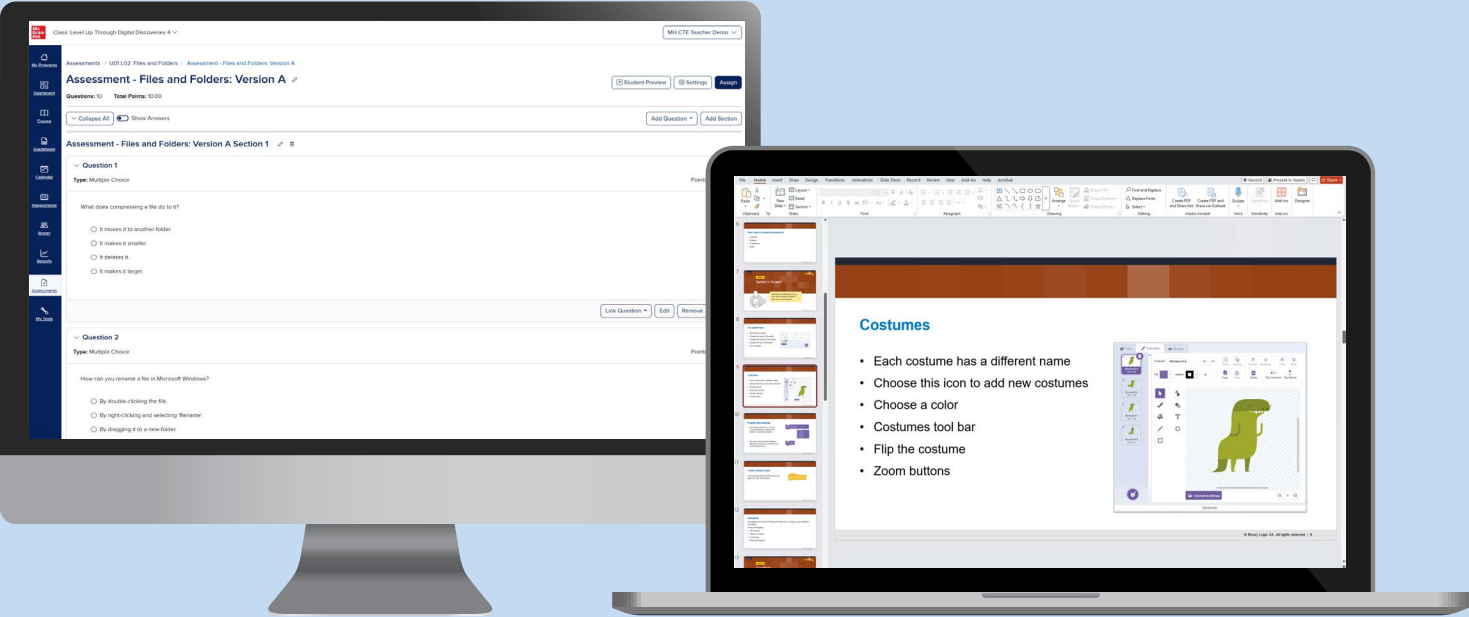
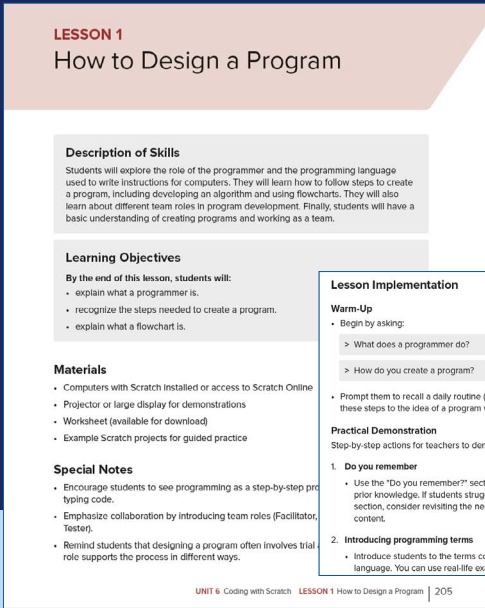
- An eBook with built-in assessments provides complete content
- Videos help students build computer application skills
- Self-grading assessment reinforces learning objectives
- SmartBook® delivers personalized, adaptive learning tailored to student progress (for Grades 6–12)
- Simulations for soft skills create hands-on learning (for Grades 6–12)
- Special assessments ask students to apply reading, math, and visual literacy skills to the computing field (for Grades 6–12)
- Full integration into Canvas, Schoology, Google Classroom, PowerSchool, Clever, and more

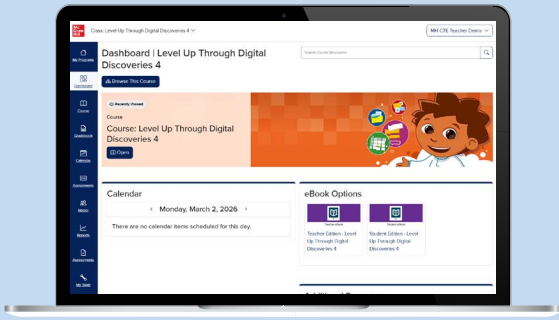
See pages 13 & 14 for more details on Grades 6–12 digital resources

Enjoy Teacher Support at Every Step

No matter your background, you will love teaching out of *Level Up Through Digital Discoveries* with its complete support.

- **Teacher's Edition** (both printed and online):
 - Teaching strategies and best practices
 - Daily lesson plans
 - Project support
- Editable PowerPoint presentations by unit
- Assessments (online or printable; editable)
- Pacing guide
- Robotics Lessons Teacher's Edition





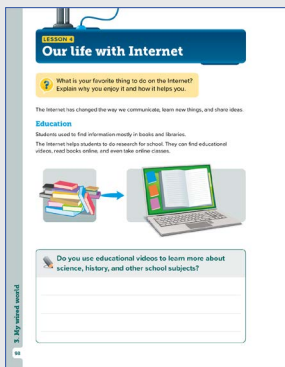
Enjoy Teaching Computing Skills, No Matter Your Background!

Short, high-interest, hands-on lessons with full guidance makes teaching computer science easy and fun. The program works in home room teaching, specials, after school programs, or for visiting teachers.

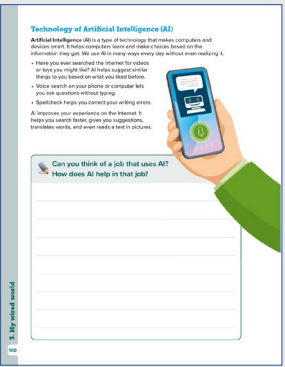


Video demo, standards correlations, and more information at mheducation.com/LevelUp-K5.
Password: MHE

1 Introduce high-interest topics

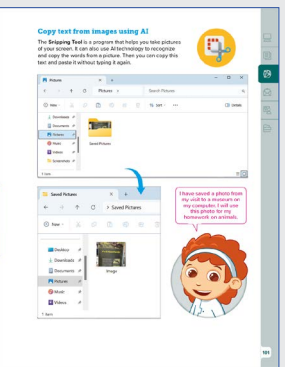


Begin your lesson with an engaging question.

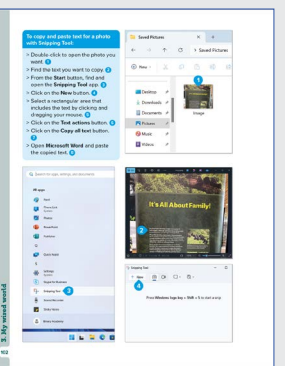


Students think critically and practice writing skills.

2 Have students practice skills

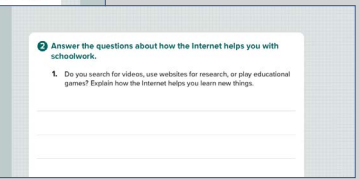
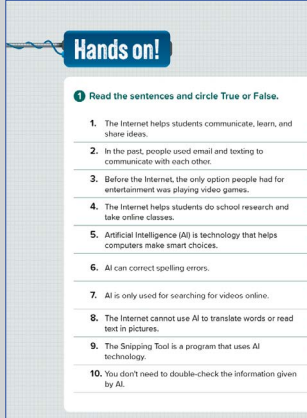


A visual guide makes learning accessible.



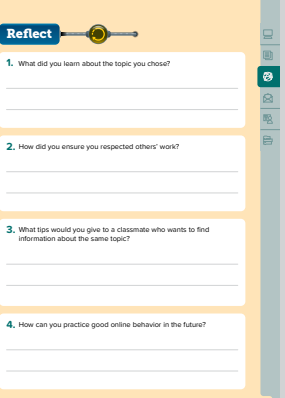
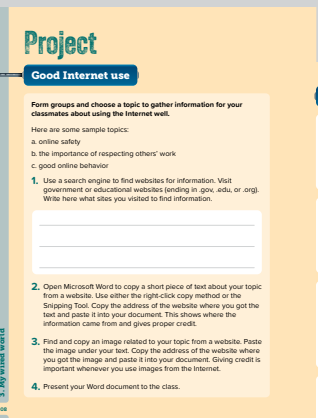
Step-by-step guidance shows students what they need to do.

3 Assess for understanding



In-text or online assessments helps students gain understanding.

4 Give a project



End-of-Unit projects engage students as they apply and reflect on new skills.



Students practice math, reading, and writing skills!

Level Up Through Digital Discoveries!
Table of Contents: Grades K–5

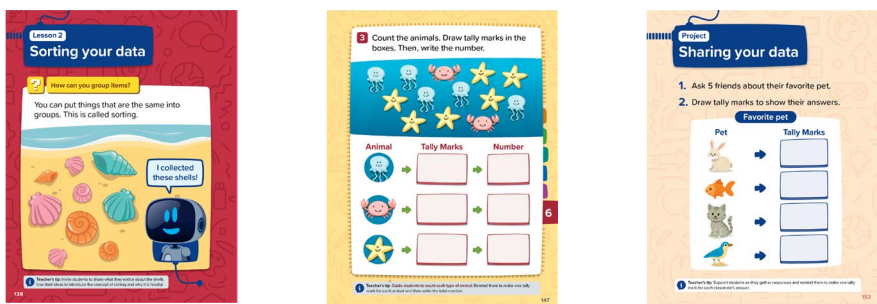


LEVEL K	LEVEL 1	LEVEL 2
1: Hello Computers Lesson 1: What Is a Computer? Lesson 2: What Do Computers Do? Lesson 3: My Senses and Computers Lesson 4: Be Safe with Screens 2: My Computer Lesson 1: Computer Parts Lesson 2: The Mouse and Keyboard Lesson 3: Exploring Icons Lesson 4: Safe Computer Use 3: Be Safe Online Lesson 1: Exploring the Internet Lesson 2: Secret Password Lesson 3: Keeping Your Information Safe Lesson 4: Screen Time 4: Step by Step Lesson 1: I Am a Problem Solver Lesson 2: Steps in Order Lesson 3: Find the Pattern Lesson 4: Fix the Mistake 5: My Smart Helper Lesson 1: What Is a Program? Lesson 2: Meet a Smart Helper Lesson 3: Using a Smart Helper Lesson 4: Smart Drawing 6: Data Detectives Lesson 1: What Is Data? Lesson 2: Sorting Your Data Lesson 3: Counting Data with Tallies Lesson 4: Showing Data with Pictures	1: My Computer Lesson 1: History of Computers Lesson 2: Computers in Our Lives Lesson 3: The Computer Lesson 4: Click and Type 2: Let's Get Started Lesson 1: The Desktop Lesson 2: Starting a Program Lesson 3: Digital Files Lesson 4: My Workspace 3: Let's Paint Lesson 1: Free Drawing Lesson 2: Shapes and Colors Lesson 3: Change the Shapes Lesson 4: Drawing with Text 4: Let's Type Lesson 1: Notepad Lesson 2: Letters and Words Lesson 3: Move Around Lesson 4: Select and Change a Word 5: Let's Explore the Internet Lesson 1: The Internet Lesson 2: Stay Safe Lesson 3: Communicate Lesson 4: Visit a Website 6: Let's Program Lesson 1: How to Program Lesson 2: Changing the Background Lesson 3: Create a Story Lesson 4: Fast and Slow	1: I Use the Computer Lesson 1: My Computer Lesson 2: The Desktop Lesson 3: Mouse and Keyboard Lesson 4: My Workspace 2: My Files Lesson 1: What Is a File? Lesson 2: My Folders Lesson 3: Organize the Folders Lesson 4: Start a Program 3: I Create Documents Lesson 1: Start Typing Lesson 2: Change the Font Lesson 3: Insert Pictures Lesson 4: Open and Print 4: I Travel the World Lesson 1: Exploring the Internet Lesson 2: Web Pages Lesson 3: Be Creative Lesson 4: Copying from the Web 5: My Data Lesson 1: Information and Data Lesson 2: Collect Data Lesson 3: Present Data Lesson 4: Data and Predictions 6: My Program Lesson 1: Solving Problems Lesson 2: Creating Animations Lesson 3: Debugging Lesson 4: Programming a Game
LEVEL 3	LEVEL 4	LEVEL 5
1: My Devices Lesson 1: Storage Lesson 2: Print Lesson 3: Capture Lesson 4: Interacting 2: My First Article Lesson 1: Robots in Our Daily Lives Lesson 2: Working with Text Lesson 3: Paragraph Formatting Lesson 4: Checking and Saving 3: My Wired World Lesson 1: Search for Information Lesson 2: Knowledge Treasure Sites Lesson 3: Online Behavior Lesson 4: Our Life with Internet 4: I Have Friends Lesson 1: My Email Lesson 2: Send a Message Lesson 3: Read and Reply Lesson 4: Email Safety 5: My First Presentation Lesson 1: All About Slides Lesson 2: Inserting Text Lesson 3: Inserting Pictures Lesson 4: Presenting Is Cool 6: Start Coding with Scratch Lesson 1: Scratch Basics Lesson 2: Using the Blocks Lesson 3: Loops in Scratch Lesson 4: Create Drawings	1: Learning the Basics Lesson 1: My Desktop Lesson 2: Files and Folders Lesson 3: Computer Settings Lesson 4: Protect My Computer 2: Working with Text Lesson 1: Format a Paragraph Lesson 2: Images and Graphics Lesson 3: Editing and Grammar Check Lesson 4: Views and Print 3: Communicating Online Lesson 1: My Friends Lesson 2: Forward an Email Lesson 3: Sending Files Lesson 4: Email Rules 4: Working with Media Lesson 1: Use Capture Devices Lesson 2: View Images and Videos Lesson 3: Create a Movie Lesson 4: Transitions and Animations 5: Working with Numbers Lesson 1: What Is a Spreadsheet? Lesson 2: Row - Column - Cell Lesson 3: Inserting Numbers and Text Lesson 4: Simple Calculations 6: Coding with Scratch Lesson 1: How to Design a Program Lesson 2: Sprites in Scratch Lesson 3: Conditions Lesson 4: Movement in Scratch	1: Exploring New Technologies Lesson 1: AI and Technology Lesson 2: Designing a Document Lesson 3: Tables and Final Touches Lesson 4: Infographic Design Basics 2: Building a Website Lesson 1: What Is a Web Page? Lesson 2: Designing a Web Page Lesson 3: Adding More Pages Lesson 4: Publishing Your Web Page 3: Using Communication Tools Lesson 1: The Internet and the Web Lesson 2: Sharing Your Moments Lesson 3: Blogging Lesson 4: Social Media and Safety Rules 4: Formatting Numbers Lesson 1: Formatting a Cell Lesson 2: Making Calculations Lesson 3: Creating Graphs Lesson 4: Printing a Sheet 5: Collecting Information Lesson 1: Gathering Data Lesson 2: Introduction to Databases Lesson 3: Creating a Database Lesson 4: Sorting and Printing 6: Next Steps in Scratch Lesson 1: Sensing Lesson 2: Loops in Scratch Lesson 3: Variables Lesson 4: Making Decisions

Each unit ends with a culminating project!

Domains and Topics
Progress From Grade to Grade

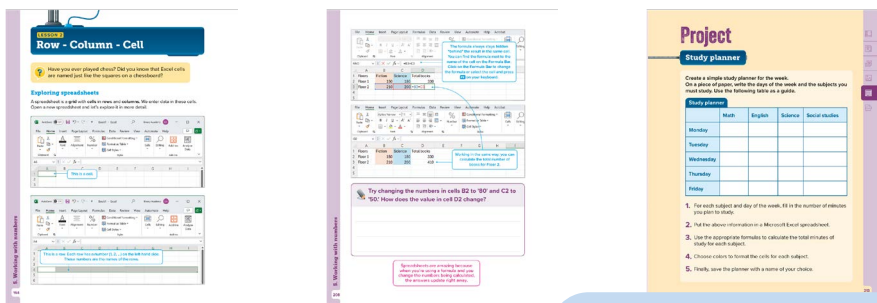
As an example, in **Grade K**, students learn about sorting **data** . . .



. . . in **Grade 2**, they find patterns in **data** to make predictions . . .



. . . in **Grade 4**, they organize **data** into a spreadsheet, add up sums, and color cells.



BONUS: Teaching data helps math skills!



AI Literacy – Grades K–5

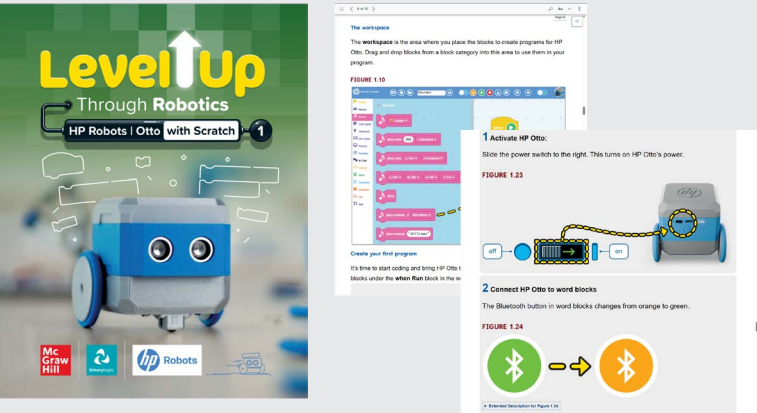
Using *Level Up Through Digital Discoveries*, elementary school students gain a deeper understanding of how AI works and how to use it ethically and effectively in the context of computer science lessons.

GRADE 1	Unit	Objectives	Skills
	3	- Understand how AI tools help us. - Recognize AI tool in Paint that can be used to automate tasks.	- Generate images from text with AI technology in Paint. - Remove the background of the images with AI.
GRADE 2	Unit	Objectives	Skills
	4	- Understand a simple definition of AI. - Explore how AI can be used in everyday tools like AutoDraw. - Use AutoDraw to interact with AI and understand its role in making drawings.	Choose from AI-generated suggestions to complete a drawing.
GRADE 3	Unit	Objectives	Skills
	3	- Identify examples of AI in everyday life. - Recognize that AI may give incorrect or misleading information. - Understand the impact of AI on the internet.	- Check AI-generated information using trusted sources. - Use the snipping tool to copy text from a photo with AI.
GRADE 4	Unit	Objectives	Skills
	4	- Understand how AI can be used to create videos. - Recognize how AI makes video creation faster and easier.	- Use Clipchamp AI tools to create a video. - Add videos and photos. - Add a transition effect. - Add music. - Add titles.
GRADE 5	Unit	Objectives	Skills
	1	- Explain how AI is used in daily life to solve problems and assist with tasks. - Discuss basic ethical considerations related to AI. - Understand the concept of deepfakes.	- Identify simple examples of AI used in daily life, such as voice assistants, mobile payments, assistive technologies, text generation, and image or video creation. - Identify basic examples of modern technology, such as virtual reality, health technology, and drones.

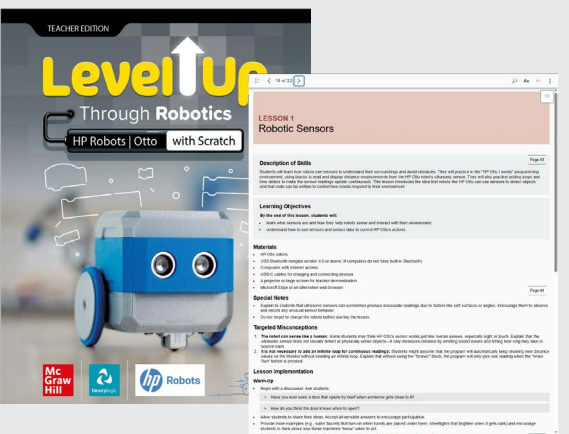
Bonus Robotics Lessons

As a bonus to the core instruction, *Level Up Through Digital Discoveries* provides full robotics lessons that teachers will love using with students. Students beam with excitement learning to code using robots!

Each **eBook** contains three to four easy-to-follow lessons and a project laid out visually over dozens of pages.



A digital **Teacher's Edition** makes teaching lessons a snap, no matter your background.



Visual guidance and assessment provides an educational framework around these fun lessons.

The coding software and robot hardware covered with these bonus lessons in Grades K–5:

	Beebot	Vex 123	Lego® SPIKE Essential	Edison	HP Otto	Vex Go	Open Roberta Labs
Button Interface Beebot	K, 1						
Button Interface Vex 123		1, 2					
Icon Blocks			1, 2	1, 2	1, 2		
Scratch			3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5	3, 4, 5



Make Middle School Click!

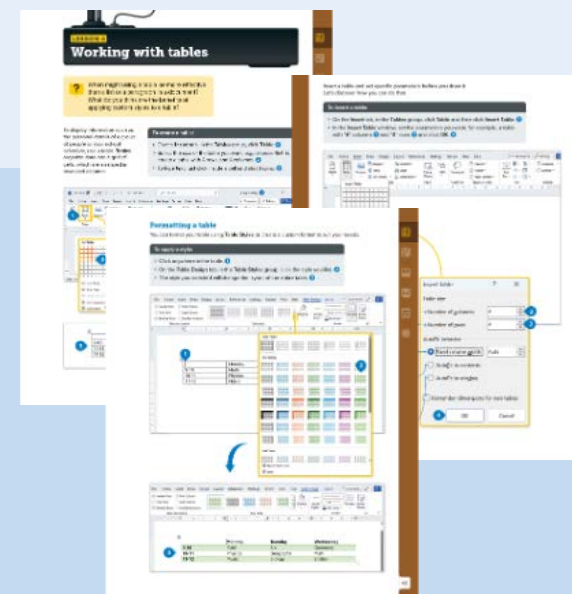
Table of Contents: Grades 6–8



LEVEL 6	LEVEL 7	LEVEL 8
1: Learning the Basics Lesson 1: Computers and Devices Lesson 2: The Operating System Lesson 3: Files and Folders Lesson 4: Basic Settings Lesson 5: Hints and Tips	1: Creating a Document Lesson 1: Formatting Text Lesson 2: Advanced Formatting Lesson 3: Images and Graphics Lesson 4: Working with Tables Lesson 5: Check and Print	1: Collecting Information Lesson 1: Introduction to Databases Lesson 2: Filter and Sort Lesson 3: Making Complex Calculations Lesson 4: References Lesson 5: Advanced Charts
2: Exploring Cloud Tools Lesson 1: Working with Forms Online Lesson 2: Creating Surveys Lesson 3: Organizing Data Online Lesson 4: Editing Online Spreadsheets Lesson 5: Online Collaboration	2: Working with Numbers Lesson 1: Advanced Formatting Lesson 2: Simple Calculations Lesson 3: Logical Functions Lesson 4: Create a Chart Lesson 5: Computer Models	2: Python Programming Basics Lesson 1: Repetition Lesson 2: Nested Loops Lesson 3: Functions Lesson 4: Drawing with Python Lesson 5: Libraries and APIs
3: Getting Online Lesson 1: Exploring the Web Lesson 2: Using Online Resources Lesson 3: Sending and Receiving Email Lesson 4: Organizing Email Lesson 5: Staying Safe Online	3: Getting Started with Physical Computing Lesson 1: Introduction to the micro:bit Lesson 2: Interacting with the micro:bit Lesson 3: Variables Lesson 4: Decision-Making Lesson 5: Loops	3: Advanced Projects with micro:bit Lesson 1: micro:bit with Python Lesson 2: Making Decisions Lesson 3: Variables and Loops Lesson 4: Understanding micro:bit Pins Lesson 5: Play Some Music
4: More Coding with Scratch Lesson 1: Game Design Lesson 2: Coordinates Lesson 3: Making Complex Decisions Lesson 4: The Scoring System Lesson 5: An Advanced Game	4: Presenting Your Ideas Lesson 1: Slides, Text, and Images Lesson 2: Transitions and Animations Lesson 3: Sound, Video, and 3D Models Lesson 4: Charts and Graphs Lesson 5: Tips and Tricks	4: Designing a Document Lesson 1: Tabs and Columns Lesson 2: Headers and Footers Lesson 3: HTML and PDF Lesson 4: Mail Merge Lesson 5: Advanced Topics
5: 3D Design Lesson 1: Introduction to 3D Modeling Lesson 2: Introduction to Tinkercad Lesson 3: Hollowing Solid Objects Lesson 4: Creating Functional Designs Lesson 5: Designing a Birdhouse	5: Introduction to Python Lesson 1: Introduction to Programming Lesson 2: Variables and Commands Lesson 3: Input Data Lesson 4: Conditional Statements Lesson 5: Multiple Decisions	5: Multimedia Presentations Lesson 1: Storyboarding Lesson 2: Capture and Edit Multimedia Lesson 3: Record Your Voice Lesson 4: Fix Photos and Add Effects Lesson 5: Create an Animated Story
6: Introduction to Artificial Intelligence Lesson 1: AI Concepts Lesson 2: Training a Machine Learning Model Lesson 3: Programming an ML Model Lesson 4: Image Recognition Lesson 5: From Data to Decisions	6: The Evolution of Technology Lesson 1: History and AI Technologies Lesson 2: Emerging Technologies Lesson 3: Introduction to GenAI Lesson 4: Prompt Engineering Lesson 5: Issues and Social Impact	6: Communicating Online Lesson 1: Networking Basics Lesson 2: What Is a Blog? Lesson 3: Social Media Lesson 4: Communication Tools Lesson 5: Digital Citizenship

The flexibility and accessibility of printed worktexts, dynamic digital, or a blend of both.

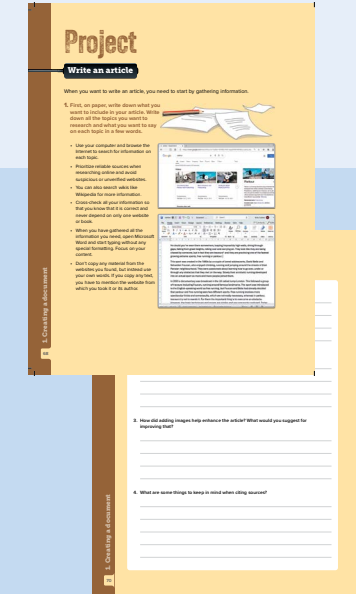
The printed consumable worktext, also available as an eBook and SmartBook®, paves the way for student success.



Step-by-step visual guidance works side-by-side when using the application.



Using pencils to take notes and answer questions helps students retain what they learn.



End-of-Unit projects engage students as they apply and reflect on new skills.

Each unit ends with a culminating project!



Video demo, standards correlations, and more information at mheducation.com/LevelUp-6-8.
Password: MHE





Dynamic Digital Resources Throughout Middle School and Beyond

Middle schoolers and older students often use devices for their main learning resource. So, while the consumable print worktext is an excellent option, we have added online features to support these age groups. Resources include customizable worksheets with extra practice activities and differentiation. All resources in the digital suite, including videos, are fully accessible.

An **adaptive personalized** SmartBook® supercharges learning with a student-oriented study environment. As students take assessments, they are guided into readings where extra study is needed.

Multiple Choice Question
What helps GenAI give answers?

- ☐ sensors
- ☒ patterns
- ☐ timers
- ☐ colors

Need help? Review these concept resources.
Read About the Concept

Rate your confidence to submit your answer: High Medium Low

SmartBook - Intro to GenAI

Generative AI (GenAI) refers to a type of artificial intelligence capable of creating new content such as text, images, music, videos, or code. This is achieved by using patterns and data it has learned during training. Unlike traditional AI, which focuses on analyzing data or performing specific tasks, GenAI produces original outputs through advanced models known as "language models" or neural networks.

While GenAI tools are highly capable, they may not always provide accurate or up-to-date information. Always verify critical data to ensure its correctness and relevance.

Real-life applications of ChatGPT

There are many free and paid GenAI tools available to help solve problems in your daily tasks. Here are some examples of how you can use tools like ChatGPT, Gemini, Claude, or Llama:

Creative Writing
Problem: You need an idea for a short story assignment but don't know where to start.
Solution: Use a GenAI tool to brainstorm story ideas or create an outline based on your favorite topic.

Image recognition

Image recognition is a technology that helps computers understand and identify objects, people, places, or even emotions in pictures. For example, if you provide a computer with a picture of a dog, it can recognize that it is a dog and not a cat or a chair. Image recognition is used in many common activities, like unlocking a phone with the owner's face, organizing photos by recognizing people in them, or helping self-driving cars identify traffic signs and other vehicles.

How does it work?

It works by analyzing the patterns, shapes, and colors in the image to identify what is shown.

FIGURE 6.41

An **Interactive eBook** with the full program content, embedded assessment, and notetaking and read-aloud features provides a more straightforward learning experience.

Student Edition - Level Up Through Digital Discoveries 6

Complete the five exercises.

1.1 Using the dropdown, select the missing word.

Choose the best answer:

Select an answer: _____ is when a computer learns from lots of examples to make decisions. These examples are called _____ different types of pictures. This is called _____.

Machine Learning
Image recognition

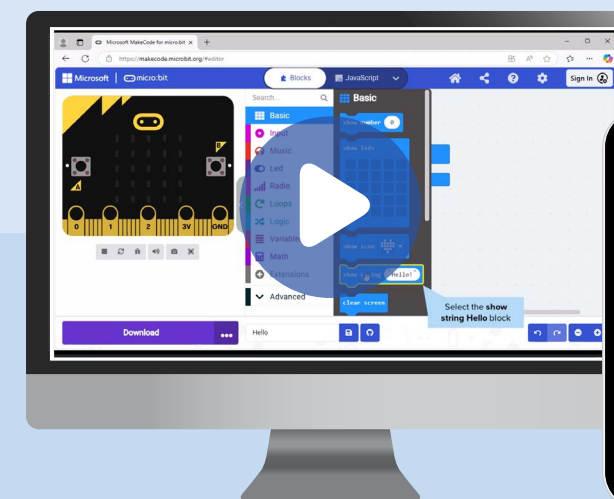
1.2 Using the dropdown, select the missing word.

Choose the best answer:

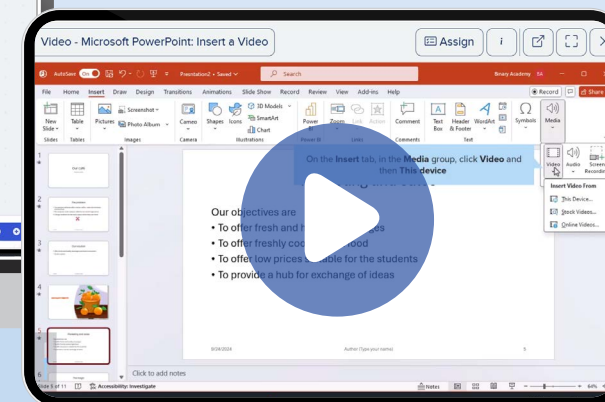
To train your model properly, you need to provide it with a lot of _____ so the algorithm can recognize _____ in the data. As a result, the algorithm will be better _____ and the result will be more _____ in recognizing a new data.

Show Correct Answer
Check Answer

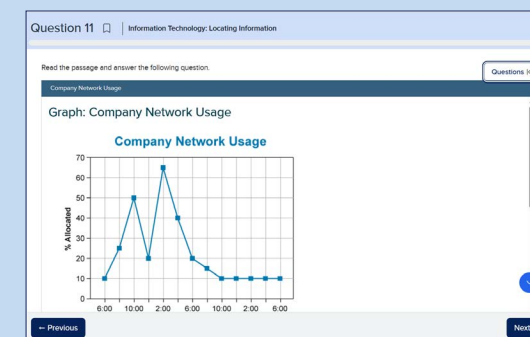
1.3 Using the dropdown, select the missing word.



Short video tutorials cover alternative tools and provide quick explanations of specific application tasks.



Critical-thinking questions ask students to use reading, math, and visual literacy skills in an info tech environment.



Soft skills simulations provide hands-on decision-making opportunities for students.



Assessments help students retain new skills and knowledge gained in the lesson and unit.

Question 5 | Assessment - Presenting your ideas: Version B

Arrange the steps in the correct order to insert an image into a PowerPoint slide.

Click Pictures and select an image from your computer.

Click on the slide where you want to insert the image.

Click Insert to add the image to the slide.

Go to the Insert tab.

Previous
I'm Done

Question 3 | Assessment - Communicating online: Version B

Match each term with its correct description:

	A unique identifier for a device on a network.	A set of rules for polite online behavior.	Software with accessible and regularly updated code.	A website with regularly updated posts.
Blog	☐	☐	☐	☐
IP Address	☐	☐	☐	☐
Netiquette	☐	☐	☐	☐
Open-source	☐	☐	☐	☒

Previous
Next



AI Literacy – Grades 6–8

Using *Level Up Through Digital Discoveries*, middle school students gain a deeper understanding of how AI works and how to use it ethically and effectively in the context of computer science lessons.

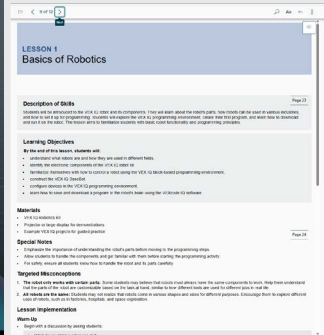
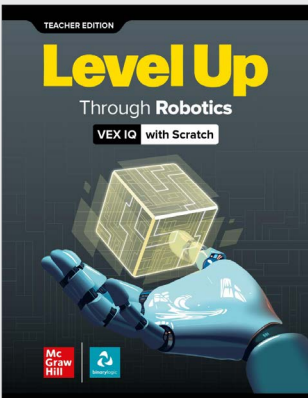
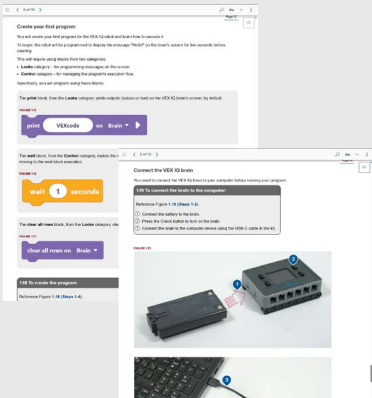
GRADE 6	Unit	Objectives	Skills
	3	■ Validate AI-generated information (triangulation). ■ Recognize misinformation in text, photos, and videos. ■ Generate images responsibly; respect Creative Commons and other licensing.	■ Use an AI assistant (e.g., Copilot) to run focused searches and cross-check sources. ■ Generate images with an AI image tool.
GRADE 6	Unit	Objectives	Skills
	6	■ Define AI and Machine Learning (ML) and describe how models learn from data. ■ Identify everyday AI uses and societal impacts. ■ Discuss ethics: privacy, bias, and accountability. ■ Train/test simple ML models for text and image classification. ■ Create simple projects that use ML predictions. ■ Understand how ML models use training data to make predictions.	■ Build a basic ML workflow (collect data → train → test → improve). ■ Use an online ML platform for text/image classification. ■ Create a Scratch project that takes input and returns a predicted label.
GRADE 7	Unit	Objectives	Skills
	1	■ Understand how an AI assistant can generate and summarize text.	■ Summarize and revise text with an AI assistant.
	Unit	Objectives	Skills
	4	■ Understand how to use an AI tool to create and improve presentations.	■ Create/organize slides and apply consistent design.
GRADE 7	Unit	Objectives	Skills
	6	■ Explain how Generative AI (GenAI) works. ■ Improve AI results with effective prompting. ■ Recognize and prevent AI hallucinations and misinformation. ■ Describe AI's impact on future jobs/work. ■ Understand AI ethics: privacy, bias, accountability, human rights. ■ Recognize deepfakes and risks to trust.	■ Use real-life GenAI tools (e.g., ChatGPT) to create content responsibly. ■ Write and iterate on prompts. ■ Review AI outputs for accuracy and reliability.
GRADE 8	Unit	Objectives	Skills
	5	■ Enhance images with AI tools. ■ Explain legal and ethical considerations for AI and intellectual property. ■ Use AI features that streamline video editing and production.	■ Use an AI image enhancement tool and compare before/after results. ■ Use AI voiceover/text-to-speech features.

Bonus Robotics Lessons

As a bonus to the core instruction, *Level Up Through Digital Discoveries* provides full robotics lessons that teachers will love using with students. Students beam with excitement learning to code using robots!



Each **eBook** contains three to four easy-to-follow lessons and a project laid out visually over dozens of pages.



Visual guidance and assessment provides an educational framework around these fun lessons.

The coding approach and robot hardware covered with these bonus lessons in Grades 6–8:

	Open Roberta Labs	LEGO® SPIKE Essential	Vex IQ	VEXCode VR Simulator
Scratch	3, 4, 5, 6	6, 7, 8	6, 7, 8	6, 7, 8
Python		7, 8	7, 8	7, 8



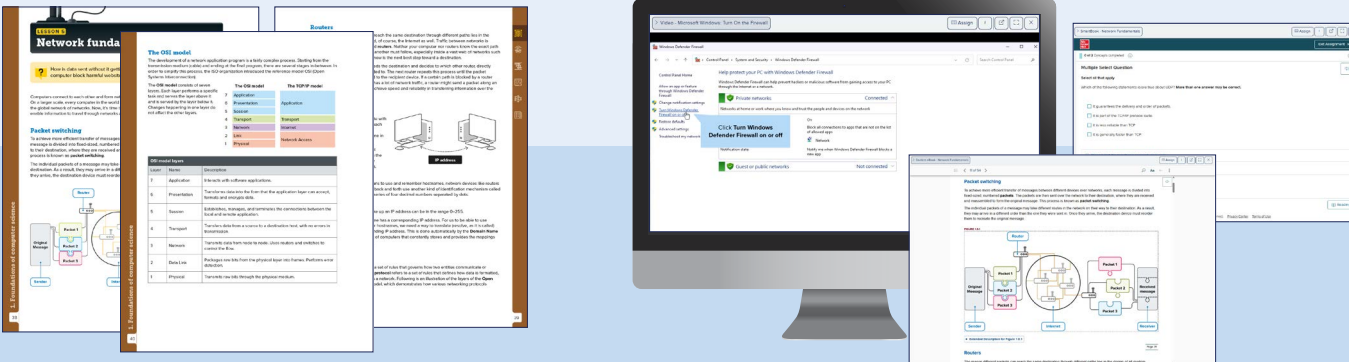
Stepping Forward in Career
Readiness with Modern Skills
Table of Contents: Grades 9–12



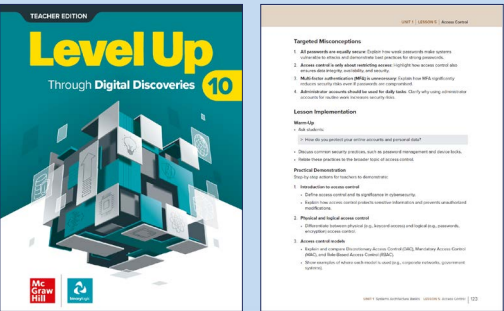
LEVEL 9	LEVEL 10	LEVEL 11	LEVEL 12
1: Handling Databases Lesson 1: Structured Information Lesson 2: Data Entry Forms Lesson 3: Queries Lesson 4: Reports Lesson 5: Import and Export Data	1: Foundations of Computer Science Lesson 1: Data Manipulation Lesson 2: Logic Circuits Lesson 3: Operating Systems Lesson 4: Abstractions Lesson 5: Network Fundamentals	1: Systems Architecture Basics Lesson 1: Computer Architecture Lesson 2: Storage Devices Lesson 3: Memory and Process Management Lesson 4: File Systems Lesson 5: Access Control	1: Understanding Networks and IoT Lesson 1: Wired and Wireless Networks Lesson 2: The Evolution of Mobile Networks Lesson 3: The Fundamentals of IoT Lesson 4: IoT Infrastructure Lesson 5: IoT Applications and Challenges
2: Creating a Website Lesson 1: Introduction to HTML Lesson 2: Improving a Website Lesson 3: Creating a Form with HTML Lesson 4: Styling a Website Lesson 5: Creating a Responsive Website	2: Working Online Lesson 1: Working with Documents Online Lesson 2: Online Meetings Lesson 3: Presentation Broadcasting Lesson 4: Notes Management Lesson 5: Mind Mapping	2: Data and Information Lesson 1: Data, Information, and Knowledge Lesson 2: Data Collection Lesson 3: Data Types and Encoding Lesson 4: Data Validation I Lesson 5: Data Validation II	2: Fundamentals of Cybersecurity Lesson 1: Cybersecurity Attacks and Risks Lesson 2: Cybersecurity Controls Lesson 3: Hardware, Software, and OS Security Lesson 4: Network Web Security Lesson 5: Advanced Topics in Cybersecurity
3: E-Commerce and Cybersecurity Lesson 1: E-Commerce Lesson 2: Online Transactions Lesson 3: Information Security Lesson 4: Personal and Computer Security Lesson 5: Digital Footprint & Internet Security	3: Project Management Lesson 1: Introduction to Project Management Lesson 2: Project Execution Lesson 3: Create a Gantt Chart Lesson 4: Effective Project Planning Lesson 5: Create a Diagram	3: Data Structures in Python Lesson 1: Dictionary Lesson 2: Array Lesson 3: Stack Lesson 4: Queue Lesson 5: Linked Lists	3: Software Engineering Lesson 1: Principles of Software Engineering Lesson 2: Evolution of Development Methods Lesson 3: Programming Languages/Processors Lesson 4: Software Development Tools Lesson 5: Analysis
4: Developing Mobile Applications I Lesson 1: Introduction to Applications Lesson 2: Designing a Mobile Application Lesson 3: Developing with MIT App Inventor Lesson 4: Adding Functionality Lesson 5: Finalizing the Application	4: Advanced Python Programming Lesson 1: Lists and Tuples Essentials Lesson 2: Advanced Lists and Tuples Lesson 3: Event Handlers in Python Lesson 4: Recursion Lesson 5: Connecting to a Book Library API	4: Developing Mobile Applications II Lesson 1: Advanced Prototyping Lesson 2: From Prototyping to Developing Lesson 3: Multilingual Functionality Lesson 4: Adding Real-Time Data to the App Lesson 5: Enhanced Accessibility Features	4: Sorting and Searching Algorithms Lesson 1: Basics of the Sorting Process Lesson 2: Swap-Based Algorithms Lesson 3: Shift-Based Algorithms Lesson 4: Non-Comparison Algorithms Lesson 5: Search Algorithms
5: Deep Diving Lesson 1: Advanced Networking Lesson 2: Data and Network Security Lesson 3: Servers and Storage Lesson 4: Cloud Storage Lesson 5: I'm an IT Administrator	5: Technology in Life Lesson 1: Monitoring and Control Lesson 2: Advanced AI and Machine Learning Lesson 3: Emerging Technologies Lesson 4: Environment and Health Impacts Lesson 5: Computers in Society	5: Advanced Imaging Lesson 1: Image Essentials Lesson 2: Layers Lesson 3: Image Adjustments Lesson 4: Retouch and Enhance Lesson 5: 2D Animation Creation	5: Navigating Graphs and Trees Lesson 1: Complex Data Connections Lesson 2: Trees Lesson 3: Graphs Lesson 4: The BFS Algorithm Lesson 5: The DFS Algorithm
6: Documents for a Purpose Lesson 1: Advanced Documents Lesson 2: Customizing Content Lesson 3: Spreadsheets Lesson 4: Presentations Lesson 5: Introduction to Infographics	6: Documents and Forms Lesson 1: Graphic Design Principles Lesson 2: Business Documents Lesson 3: Business Forms I Lesson 4: Business Forms II Lesson 5: Business Reports	6: Advanced Multimedia Lesson 1: Video Shooting Lesson 2: Video Editing Lesson 3: Visual Effects Lesson 4: The Final Touch Lesson 5: 3D Animation	6: Artificial Intelligence Algorithms Lesson 1: Uninformed Search Algorithms Lesson 2: Informed Search Algorithms Lesson 3: Natural Language Processing Lesson 4: Natural Language Generation Lesson 5: Generating Text

High school students gain more sophisticated skills and knowledge in computing and AI with a complete program of print, digital, and teacher support.

Grades 9–12 offers the same digital features as Grades 6–8 (see pages 12–15) with more challenge and sophistication of topics.



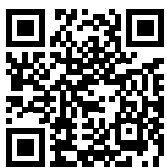
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