

2026/2027

Technology

Scope and Sequence

DIGITAL LITERACY + COMPUTATIONAL THINKING

- ✓ GRADES K-5
- ✓ ALIGNED TO ISTE NATIONAL STANDARDS
- ✓ INQUIRY-BASED FOR STUDENT-CENTERED LEARNING
- ✓ AVAILABLE IN 50+ LANGUAGES

NEW FOR THE SCHOOL YEAR

26/27

NEW FOR THE SCHOOL YEAR

inquisitive

Open-and-Go Lessons

Intuitive Design Builds Teacher Confidence

Lessons guide digital literacy and computational thinking without requiring prior expertise.

Comprehensive Teaching Sequence

Every lesson includes a clear progression, from launch to reflection, aligned with learning goals and standards.

Detailed Teacher Notes

Step-by-step guidance, differentiation tips, modeled solutions, pacing.

Suggested Inquiry

For discussion with student voice and choice.

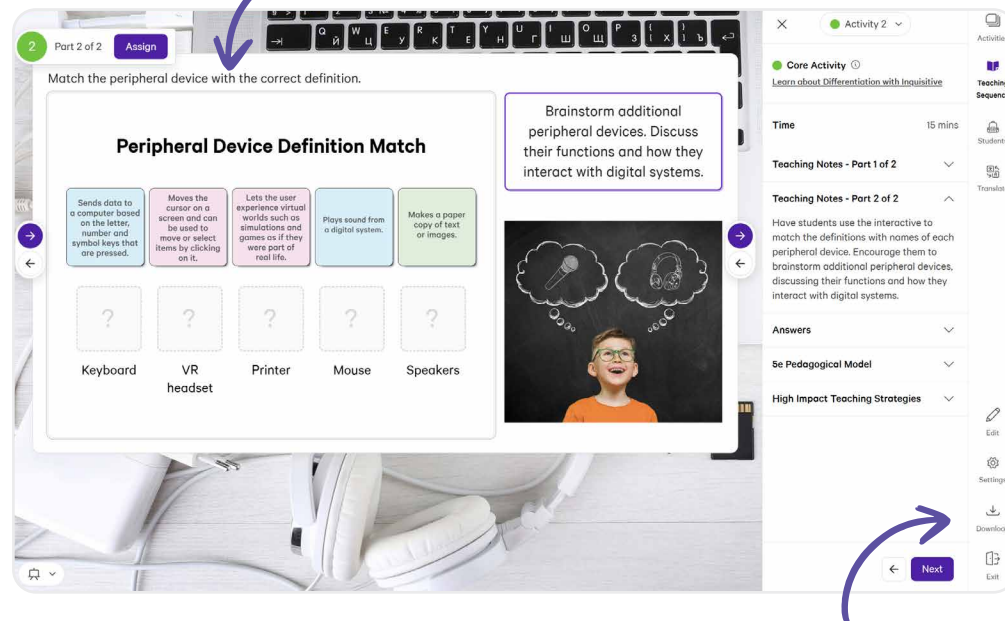
Open-and-Go Simplicity

Lesson slides are ready to teach with embedded stimulus.

Visual & Interactive Aids

Slides, videos, prompts, and activities are fully integrated.

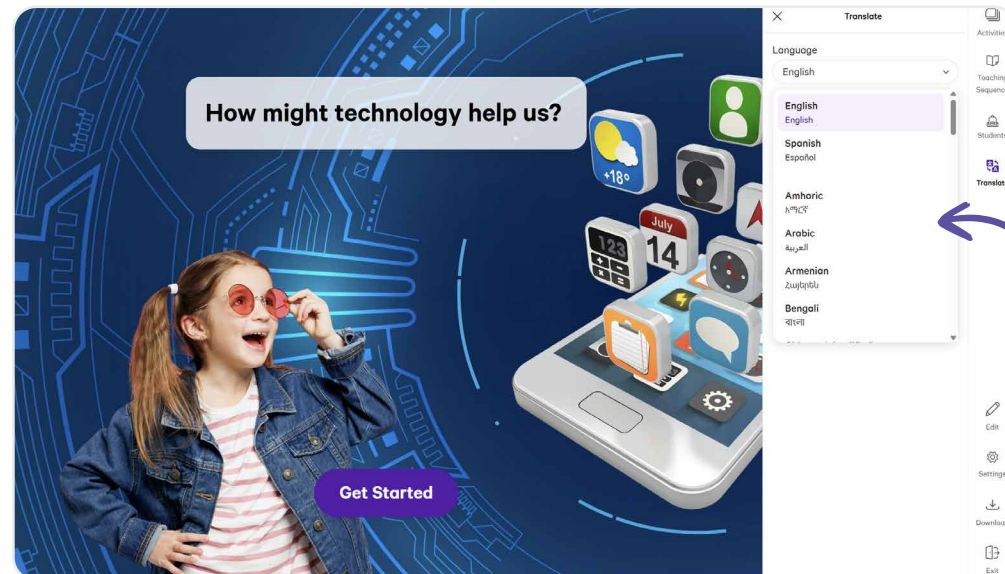
Interactive slides with embedded stimulus



Teaching notes:

- Background notes
- Suggested answers
- Teaching strategies

Digitally share and print resources



50+ languages



Grades K-2

UNIT 1: DIGITAL TOOLS ALL AROUND US (DIGITAL LITERACY)

UNIT 2: TECHNOLOGY FOR PURPOSE (DIGITAL LITERACY)

UNIT 3: SAFE, SMART DIGITAL CITIZENS (DIGITAL LITERACY)

UNIT 4: EXPLORING DATA (COMPUTATIONAL THINKING)

UNIT 5: ALGORITHMS IN ACTION (COMPUTATIONAL THINKING)

Digital Literacy

Digital Tools All Around Us

Students build the vocabulary and confidence to recognize the digital systems they already use every day. They learn what counts as hardware versus software, how peripheral devices extend a system, and how to create and keep their own digital artifacts responsibly.

- Identify familiar digital systems and distinguish their hardware and software.
- Recognize input and output peripherals and how they interact with a system.
- Take a photo with permission, then label and save it.

Lesson 1

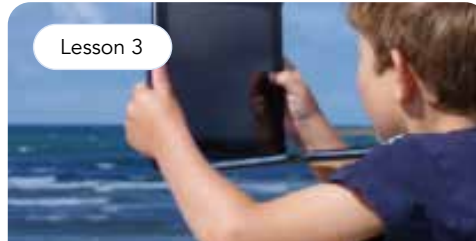
**Here, There and Everywhere!**

Students are learning to identify familiar digital systems and their hardware and software.

ISTE Standard

Empowered Learner:
1.1d Technology Fundamentals

Lesson 3

**Click, Capture, Create**

Students are learning to take a photo, with permission, label and save it.

ISTE Standard

Empowered Learner;
Creative Communicator:
1.1d Technology Fundamentals,
1.6d Customize the Message

Lesson 2

**Exploring Peripherals**

Students are learning to identify input and output peripheral devices and understand how they interact with digital systems.

ISTE Standard

Empowered Learner;
Computational Thinker:
1.1d Technology Fundamentals,
1.5c Decompose Problems

Lesson 1

**Exploring Apps**

Students are learning to identify and safely use apps for a purpose.

ISTE Standard

Empowered Learner:
1.1d Technology Fundamentals

Lesson 2

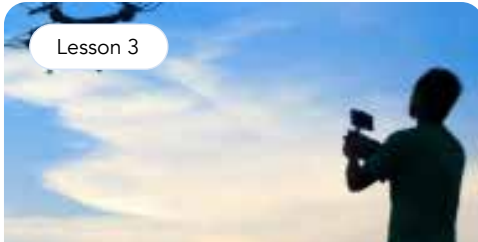
**Let's Communicate**

Students are learning to understand how we can use digital systems to communicate.

ISTE Standard

Empowered Learner:
1.1d Technology Fundamentals

Lesson 3

**Digital Systems at Work**

Students are learning to understand how digital systems are used to meet the needs of people in different jobs.

ISTE Standard

Empowered Learner:
1.1d Technology Fundamentals

Digital Literacy

Technology For Purpose

This unit connects technology to real reasons for using it, at home, at school, and in the workplace. Students see that networks link people and that many jobs depend on computing, building an early sense of purpose and audience.

- Identify and safely use apps for a specific purpose.
- Use digital systems to communicate with others.
- Understand how digital systems meet the needs of different jobs.

Digital Literacy

Safe, Smart Digital Citizens

Students develop the habits of responsible, safe, and respectful participation online. They learn what information should stay private, why online decisions are permanent, and how to work well with others in shared digital spaces.

- Distinguish personal data from public data.
- Keep personal information private when sharing online.
- Use secure passwords and positive online communication.
- Collaborate and share appropriately using digital tools.

Lesson 1

**Personal and Public Data**

Students are learning to identify and differentiate between personal and public data.

ISTE Standard

Digital Citizen:
1.2a Digital Footprint,
1.2d Digital Privacy

Lesson 2

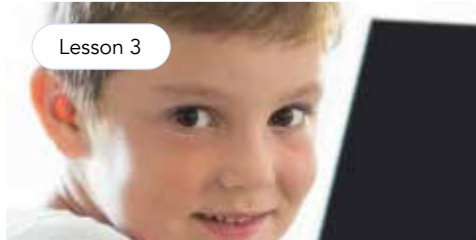
**Ask First**

Students are learning to understand the importance of keeping personal information private when sharing online.

ISTE Standard

Digital Citizen:
1.2a Digital Footprint,
1.2d Digital Privacy

Lesson 3

**Safe Access**

Students are learning to use digital systems in a responsible and respectful way by understanding the importance of secure passwords and positive online communication.

ISTE Standard

Digital Citizen:
1.2a Digital Footprint,
1.2b Online Interactions,
1.2d Digital Privacy,
1.2c Safeguard Well-being

Lesson 4

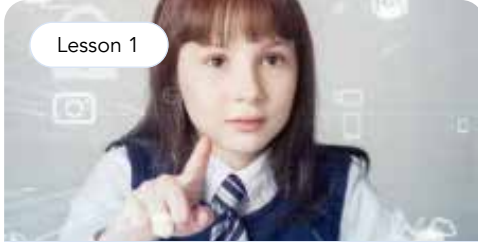
**Smart Sharing**

Students are learning to understand how to use digital tools for collaboration and sharing.

ISTE Standard

Empowered Learner; Digital Citizen;
Creative Communicator; Global
Collaborator: 1.1b Customized
Learning Environments, 1.1c Feedback
to Improve Practice, 1.2a Digital
Footprint, 1.2b Online Interactions,
1.6b Original and Remixed Works, 1.7c
Project Teams

Lesson 1

**Exploring Data Representation**

Students are learning to identify data that can be represented as pictures, symbols, numbers or words in digital environments.

ISTE Standard

Computational Thinker:
1.5b Data Sets

Lesson 2

**Data as Objects**

Students are learning to represent data using objects.

ISTE Standard

Computational Thinker:
1.5b Data Sets

Lesson 3

**Manipulating Data**

Students are learning to upload and manipulate data in several ways.

ISTE Standard

Computational Thinker:
1.5b Data Sets

Lesson 4

**Patterns in Data**

Students are learning to recognize how patterns in data solve problems.

ISTE Standard

Computational Thinker:
1.5b Data Sets

Computational Thinking**Exploring Data**

Students discover that data can be represented in many forms, then sorted, stored, and changed. They begin to see patterns as a tool for solving problems, laying groundwork for later data and coding work.

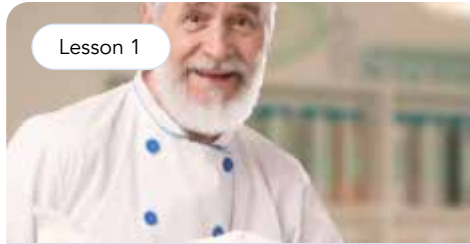
- Represent data as pictures, symbols, numbers, or words.
- Represent data using physical objects.
- Upload and manipulate data in several ways.
- Recognize how patterns in data help solve problems.

Computational Thinking Algorithms in Action

This unit introduces algorithmic thinking through sequence, decision, and repetition. Students follow and build step-by-step instructions, use branching to make choices, and control a device with code, developing early problem-solving strategies.

- Follow the steps of an algorithm to solve a problem.
- Describe steps and decisions, using branching.
- Create algorithms that repeat a set number of times (iteration).
- Program a sequential algorithm that controls a device.

Lesson 1



Following an Algorithm

How does following steps help us solve a problem?

ISTE Standard

Computational Thinker;
Empowered Learner:
1.5d Algorithmic Thinking,
1.1d Technology Fundamentals

Lesson 2



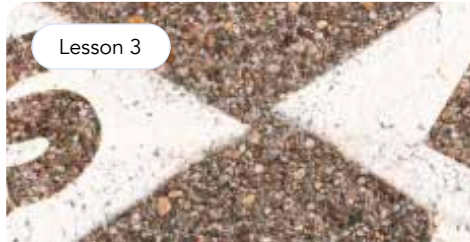
Steps and Decisions Solve Problems

Students will be able to describe steps and decisions to solve a problem.

ISTE Standard

Computational Thinker;
Empowered Learner:
1.5d Algorithmic Thinking,
1.1d Technology Fundamentals

Lesson 3



Making Decisions

Students are learning to use branching to make decisions and solve problems.

ISTE Standard

Computational Thinker;
Empowered Learner:
1.5d Algorithmic Thinking,
1.1d Technology Fundamentals,
1.5c Decompose Problems

Lesson 4



Repeating Steps

Students are learning to create and follow an algorithm with steps that repeat a set number of times (iteration).

ISTE Standard

Computational Thinker; Creative Communicator; Empowered Learner:
1.5d Algorithmic Thinking,
1.6b Original and Remixed Works,
1.1d Technology Fundamentals

Lesson 5

**Controlling a Device**

Students are learning to create a sequential algorithm that controls a digital device.

ISTE Standard

Computational Thinker; Creative Communicator; Innovative Designer; Empowered Learner:
1.5d Algorithmic Thinking,
1.6b Original and Remixed Works,
1.4d Open-Ended Problems,
1.1d Technology Fundamentals

Grades 3-5

UNIT 1: DIGITAL DEVICES IN OUR WORLD (DIGITAL LITERACY)

UNIT 2: SAFE, SMART, AND ETHICAL DIGITAL CITIZENS (DIGITAL LITERACY)

UNIT 3: COLLABORATING IN A DIGITAL WORLD (COMPUTATIONAL THINKING)

UNIT 4: DATA WIZARDS (COMPUTATIONAL THINKING)

UNIT 5: FROM DEVICE TO DEVICE (COMPUTATIONAL THINKING)

UNIT 6: LOOPS, LOGIC, AND UI (COMPUTATIONAL THINKING)

UNIT 7: TURTLE TRACKS: CODING IN ACTION (COMPUTATIONAL THINKING)

UNIT 8: INTERFACE INNOVATORS (COMPUTATIONAL THINKING)



Lesson 1

What is Data?

Students are learning to understand how data is collected, used and represented in digital platforms.

ISTE Standard

Computational Thinker:
1.5b Data Sets



Lesson 2

Data and Digital Systems

Students are learning to understand how data is transferred and transmitted between digital systems.

ISTE Standard

Empowered Learner:
1.1d Technology Fundamentals



Lesson 3

Telehealth

Students are learning to understand how real-world digital systems use internal components and network connections to provide essential services.

ISTE Standard

Empowered Learner; Knowledge Constructor; Computational Thinker:
1.1d Technology Fundamentals,
1.3d Explore Real-World Issues, 1.5c Decompose Problems

Digital Literacy

Digital Devices in our World

Students examine how computational devices and data shape daily life and essential services. They trace how data is collected and moved between systems and study real-world examples that connect computer science to other fields.

- Understand how data is collected, used, and represented on digital platforms.
- Explore how data is transferred and transmitted between systems.
- See how real-world systems such as telehealth use internal components and networks.

Digital Literacy

Safe, Smart, and Ethical Digital Citizens

Digital citizenship deepens into searching, privacy, security, and ethics. Students learn to evaluate online sources, protect their digital footprint, and reason about the ethical questions raised by artificial intelligence.

- Develop safe and effective online search strategies.
- Protect personal information and their digital footprint.
- Understand the importance of strong passwords and secure practices.
- Recognize and respond to ethical challenges created by AI.

Lesson 1

**Safe and Smart Online Searches**

Students are learning to develop safe and effective online search strategies.

ISTE Standard

Digital Citizen; Knowledge Constructor:
1.2a Digital Footprint, 1.3a Effective Research Strategies, 1.3b Evaluate Information, 1.3c Curate Information

Lesson 2

**Keeping It Personal**

Students are learning to understand the importance of online safety and how to protect their personal information.

ISTE Standard

Digital Citizen:
1.2a Digital Footprint, 1.2d Digital Privacy

Lesson 3

**Online Safety and Privacy**

Students are learning to:
Collaborate responsibly online.
Understand the importance of protecting their digital footprint.

ISTE Standard

Digital Citizen; Creative Communicator:
1.2a Digital Footprint, 1.2b Online Interactions, 1.2d Digital Privacy, 1.6a Choose Platforms or Tools, 1.6d Customize the Message

Lesson 4

**Password Power**

Students are learning to understand the importance of strong passwords and secure online practices.

ISTE Standard

Digital Citizen:
1.2a Digital Footprint, 1.2d Digital Privacy



Lesson 5

Digital Ethics and AI

Students are learning to understand how artificial intelligence (AI) works and how to recognize and respond to the ethical challenges it can create.

ISTE Standard

Empowered Learner; Digital Citizen; Knowledge Constructor:
1.1d Technology Fundamentals,
1.2d Digital Privacy, 1.3b Evaluate Information



Lesson 1

Collaboration Online

Students are learning to understand the importance of effective online collaboration in achieving shared goals.

ISTE Standard

Empowered Learner; Digital Citizen; Knowledge Constructor; Creative Communicator; Global Collaborator: 1.1b Customized Learning Environments, 1.1c Feedback to Improve Practice, 1.2b Online Interactions, 1.3a Effective Research Strategies, 1.3c Curate Information, 1.6a Choose Platforms or Tools, 1.7b Multiple Viewpoints, 1.7c Project Teams



Lesson 2

Collaboration Using Digital Tools

Students are learning to collaborate effectively online to complete a community project proposal.

ISTE Standard

Empowered Learner; Digital Citizen; Knowledge Constructor; Innovative Designer; Creative Communicator; Global Collaborator: 1.1b Customized Learning Environments, 1.1c Feedback to Improve Practice, 1.2b Online Interactions, 1.3a Effective Research Strategies, 1.3c Curate Information, 1.3d Explore Real-World Issues, 1.4b Design Constraints, 1.6a Choose Platforms or Tools, 1.6d Customize the Message, 1.7b Multiple Viewpoints, 1.7c Project Teams, 1.7d Local and Global Issues

Computational Thinking Collaborating in a Digital World

This unit focuses on collaborating effectively online to reach shared goals. Students choose appropriate tools, consider their audience, and use feedback as they work together on a real project.

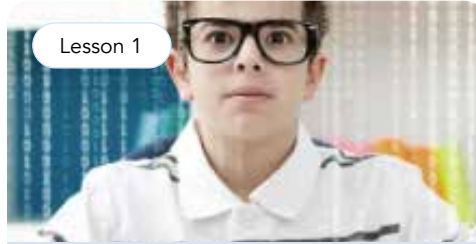
- Understand what makes online collaboration effective.
- Collaborate using digital tools to complete a community project proposal.

Computational Thinking Data Wizards

Students explore how computers encode and store data and how to analyze and communicate it. They move from binary fundamentals to spreadsheets and AI-assisted analysis, using data to answer real questions.

- Understand how binary (on/off states) represents information.
- Encode and decode information using binary and ASCII.
- Use spreadsheets to organize, analyze, and visualize data.
- Understand how AI finds patterns, makes predictions, and creates visualizations.

Lesson 1



On or Off?

Students are learning to understand how computers use binary (on/off states) to represent and process information.

ISTE Standard

Empowered Learner; Computational Thinker:
1.1d Technology Fundamentals, 1.5d Algorithmic Thinking

Lesson 3



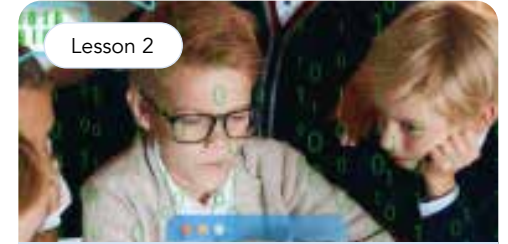
Google Sheets Wizards

Students are learning to use spreadsheets to organize, analyze and visualize data.

ISTE Standard

Computational Thinker; Creative Communicator:
1.5a Problem Definitions, 1.5b Data Sets, 1.6c Communicate Complex Ideas

Lesson 2



Cracking the Code

Students are learning to understand how digital systems encode and decode information using binary and ASCII codes.

ISTE Standard

Empowered Learner; Computational Thinker:
1.1d Technology Fundamentals, 1.5d Algorithmic Thinking

Lesson 4



Excel Wizards

Students are learning to use spreadsheets to organize, analyze and visualize data.

ISTE Standard

Computational Thinker; Creative Communicator:
1.5a Problem Definitions, 1.5b Data Sets, 1.6c Communicate Complex Ideas

Lesson 5



Analyzing and Visualizing Data with AI

Students are learning to understand how artificial intelligence (AI) analyzes data to find patterns, make predictions and create visualizations.

ISTE Standard

Empowered Learner; Computational Thinker; Creative Communicator:
1.1d Technology Fundamentals, 1.5a Problem Definitions, 1.5b Data Sets, 1.6c Communicate Complex Ideas

Lesson 1



The Ins and Outs of a Digital System

Students are learning to identify components of digital systems and the functions they perform.

ISTE Standard

Empowered Learner; Global Collaborator; Computational Thinker:
1.1d Technology Fundamentals, 1.7c Project Teams, 1.5c Decompose Problems

Lesson 2



Digital Networks

Students are learning to explain how digital networks transmit data.

ISTE Standard

Empowered Learner; Computational Thinker:
1.1d Technology Fundamentals, 1.5c Decompose Problems

Computational Thinking From Device to Device

This shorter unit explains how devices and networks move information. Students identify the components of a digital system and describe how networks transmit data between them.

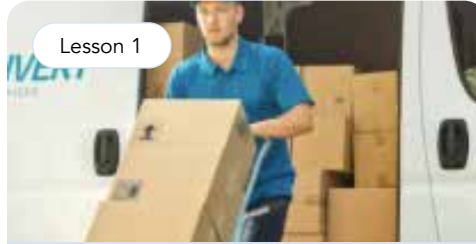
- Identify the components of digital systems and the functions they perform.
- Explain how digital networks send, receive, and transmit data.

Computational Thinking Loops, Logic, and UI

Coding fluency grows through sequence, repetition, conditions, and interface design. Students construct and debug algorithms, control repetition with loops, branch with conditions, and design interfaces around a user story.

- Create and follow algorithms to complete tasks.
- Use repetition and 'repeat until' conditions for efficiency.
- Use branching (If blocks) to make decisions based on conditions.
- Design and evaluate user interfaces (UI) from a user story.

Lesson 1



Algorithms and Sequences

Students are learning to create and follow algorithms to complete tasks.

ISTE Standard

Computational Thinker; Innovative Designer; Empowered Learner:
1.5d Algorithmic Thinking, 1.4d Open-Ended Problems, 1.1d Technology Fundamentals

Lesson 2



Repeats

Students are learning to understand how repetition in coding makes algorithms more efficient.

ISTE Standard

Computational Thinker; Empowered Learner:
1.5d Algorithmic Thinking, 1.1d Technology Fundamentals

Lesson 3



Nesting Repeats

Students are learning to understand how the 'repeat until' block uses conditions to control repetition in coding.

ISTE Standard

Computational Thinker; Empowered Learner:
1.5d Algorithmic Thinking, 1.1d Technology Fundamentals

Lesson 4



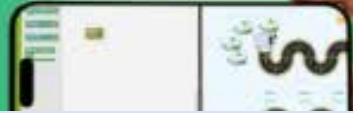
Branching

Students are learning to use the If block in coding to make decisions based on conditions.

ISTE Standard

Computational Thinker; Empowered Learner:
1.5d Algorithmic Thinking, 1.1d Technology Fundamentals

Lesson 5

**User Interfaces**

Students are learning to design and evaluate user interfaces (UI) based on a user story.

ISTE Standard

Innovative Designer; Empowered Learner:
1.4a Design Process, 1.4b Design Constraints, 1.1d Technology Fundamentals

Computational Thinking Turtle Tracks: Coding in Action

Students apply text-based coding in a Turtle Graphics environment, combining sequence, iteration, and design. They move from basic commands to patterned, colorful designs and then to solving a real problem.

- Design, implement, and modify algorithms in text-based code.
- Use iteration to create patterns in a visual programming environment.
- Add color, pen functions, shapes, and positioning.
- Apply design thinking and coding to a community problem.



Introduction to Turtle Graphics

Students are learning to design, implement and modify algorithms in text-based coding.

ISTE Standard

Computational Thinker;
Innovative Designer:
1.5d Algorithmic Thinking,
1.4d Open-Ended Problems



Colors and Pen Functions in Turtle Graphics

Students are learning to use Turtle Graphics code to create drawings with text, color, shapes and positioning.

ISTE Standard

Computational Thinker; Creative Communicator; Innovative Designer:
1.5d Algorithmic Thinking, 1.6b Original and Remixed Works, 1.4d Open-Ended Problems



Repeating Code in Turtle Graphics

Students are learning to design and implement algorithms using iteration (repetition) to create patterns in a visual programming environment.

ISTE Standard

Computational Thinker;
Innovative Designer:
1.5d Algorithmic Thinking,
1.4d Open-Ended Problems



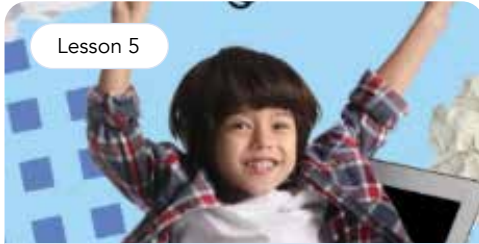
Designing with Turtle Graphics

Students are learning to use color fills and outlines in Turtle Graphics to create and customize shapes in code.

ISTE Standard

Computational Thinker;
Innovative Designer:
1.5d Algorithmic Thinking,
1.4d Open-Ended Problems

Lesson 5

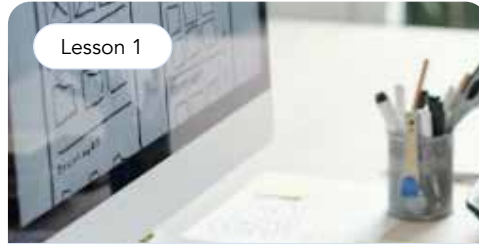
**Community Impact**

Students are learning to apply design thinking, coding and problem-solving strategies to solve a problem.

ISTE Standard

Knowledge Constructor; Innovative Designer; Creative Communicator: 1.3d Explore Real-World Issues, 1.4a Design Process, 1.4b Design Constraints, 1.4c Prototypes, 1.6b Original and Remixed Works, 1.6d Customize the Message, 1.4d Open-Ended Problems

Lesson 1

**User Interface Design**

Students are learning to identify and evaluate different user interface elements.

ISTE Standard

Innovative Designer; Computational Thinker: 1.4a Design Process, 1.4c Prototypes, 1.4b Design Constraints, 1.4d Open-Ended Problems, 1.5d Algorithmic Thinking

**Making Decisions**

Students are learning to understand and apply the concepts of flowchart symbols to represent algorithms. Students are learning to: Write and modify algorithms to handle multiple inputs and user interactions.

ISTE Standard

Computational Thinker; Creative Communicator; Innovative Designer: 1.5d Algorithmic Thinking, 1.6c Communicate Complex Ideas, 1.4d Open-Ended Problems

Computational Thinking

Interface Innovators

The sequence closes with interface evaluation and more advanced algorithm design. Students assess interface elements and use flowcharts to plan algorithms that handle multiple inputs and user interactions.

- Identify and evaluate different user interface elements.
- Use flowchart symbols to represent algorithms.
- Write and modify algorithms that handle multiple inputs and interactions.

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