Tech Is Magic! – Teacher's Guide & Mini Lesson Syllabus

A STEAM & Literacy Curriculum for Ages 5–10
Inspired by the book: Tech Is Magic! Tech Tales for Curious Kids by Taylor Smith

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Overview

This guide provides a series of interactive, beginner-friendly mini lessons for students to explore technology, creativity, and problem-solving. Each lesson is designed to:

- Spark curiosity about technology and innovation
- Build digital literacy and STEAM thinking
- Encourage creative expression through storytelling, drawing, and design
- Support cross-curricular learning in ELA, Science, and Technology

Lessons are flexible and can be used individually or as a multi-day curriculum.

Learning Objectives

By completing these lessons, students will:

- Demonstrate comprehension of technology concepts
- Explore creative problem-solving using design thinking
- Practice sequencing, debugging, and logical reasoning
- Build confidence with digital tools and hands-on creation
- Express ideas through writing, drawing, and multimedia

Lesson 1: Invent a Magical Robot

Theme: Creative Thinking + Early Engineering
Duration: 25–30 minutes

Learning Goals:

- Introduce technology as a tool for creativity
- Practice problem-solving and design thinking
- Develop visual and oral communication skills

Materials:

- Paper, pencils, crayons/markers
- Optional: iPads or tablets with drawing apps (Tayasui Sketches, Google Jamboard)
- Printable "Helper Bot" template

Instructions:

1. **Warm-Up (5 min)**
    - Ask: “What is a robot?” and “What do you wish you had help with every day?”
2. **Challenge (15 min)**
    - Students design a robot or “helper bot” that solves a problem at home or school.
    - Draw their robot, give it a name, label parts, and describe functions.
3. **Share Out (5–10 min)**
    - Students explain their bot to the class or family:
        - Problem it solves
        - How it works
        - Why it’s helpful

Extension Ideas:

- Build a 3D prototype with blocks, Legos, or recycled materials
- Write a story: “A Day in the Life with My Helper Bot”
- Create a “Helper Bot Gallery Walk” for classmates

Lesson 2: Bug Hunters – The First Computer Bug

Theme: Coding Basics + History of Tech
Duration: 30–40 minutes

Learning Goals:

- Understand that computers follow instructions
- Introduce sequencing and debugging
- Connect historical tech concepts to hands-on activities

Materials:

- Slideshow or printed comic about Grace Hopper
- Printable worksheets with “buggy” instructions

Instructions:

1. **Story Time (10 min)**
    - Introduce Grace Hopper and the first “computer bug.”
2. **Bug Hunt Activity (15–20 min)**
    - Students work in pairs to find errors in everyday routines (e.g., “Brush teeth, eat cereal, get toothbrush”).
    - Correct the steps and discuss why sequencing matters.
3. **Discussion (5–10 min)**
    - Talk about the importance of clear instructions in technology and life.

Extension Ideas:

- Introduce simple coding blocks (Scratch or code.org) for sequence exercises
- Make a “Bug Detective” badge for each student

Lesson 3: Digital Storytelling Lab

Theme: Multimedia Creation + Self-Expression
Duration: 45–60 minutes

Learning Goals:

- Build digital literacy
- Practice narrative writing and visual storytelling
- Encourage creative thinking with technology

Materials:

- Canva or Book Creator (digital options)
- Paper, pencils, crayons for offline use
- Storyboarding templates

Instructions:

1. **Kickoff (5–10 min)**
    - Prompt: “Imagine tech that feels like magic — what could YOU invent?”
2. **Storyboard & Draft (15–20 min)**
    - Students brainstorm and outline a short story or comic.
3. **Create (15–20 min)**
    - Use digital tools or paper to illustrate and write their story.
4. **Present (5–10 min)**
    - Share stories in class or create a “digital museum.”

Extension Ideas:

- Link story ideas to real-world technology examples
- Turn stories into an interactive e-book or classroom display

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Lesson 4: Introduction to AI for Kids

Theme: Artificial Intelligence + Creative Exploration
Duration: 45–60 minutes

Learning Goals:

- Introduce AI in a kid-friendly way
- Recognize AI in everyday life
- Encourage safe, creative use of AI tools

Materials:

- Access to internet + projector
- Kid-safe AI tools: ChatGPT (with supervision), Quick, Draw!, Teachable Machine
- Paper and crayons for drawing AI inventions

Instructions:

1. **Warm-Up (5–10 min)**
    - Ask: “What do you think AI is?”
2. **Intro & Video (10 min)**
    - Watch a kid-friendly AI explainer and discuss key points.
3. **Real-Life Examples (10 min)**
    - Identify AI in objects like Siri, self-driving cars, or smart vacuums.
4. **Hands-On Activity (15–20 min)**
    - Students try a guided AI activity: write a story, create a doodle, or generate a simple AI project.
5. **Reflection (10 min)**
    - Students design their own AI invention: what it does, how it helps, and why it’s fun or useful.

Extension Ideas:

- Create a “Certified Tech Explorer” badge
- Add a coloring page or AI invention template

Teacher Notes & Tips

- Lessons are flexible and can be adapted for age and class size
- Activities work with or without digital tools
- Encourage sharing and discussion to reinforce learning
- Use the “Tech Is Magic Q&A Worksheet” to reinforce reading comprehension and reflection

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Materials List – All Lessons

- Book: *Tech Is Magic!* by Taylor Smith
- Paper, pencils, crayons, markers
- Tablets/iPads (optional)
- Digital tools: Canva, Book Creator, Tayasui Sketches, Google Jamboard
- Printable worksheets & story templates (included in companion kit)
- Internet access for AI lesson (optional)
