

Teacher Guide: Is AI Magic? (AIforCA CSEdWeek 2025)

Introduction

This activity was designed for K-2 computer science classes but could be used in other curricular areas including Language Arts or Social Studies.

Structure of Learning Activity	Materials Needed
1. Read the story, <i>Wren and the AI Helpers</i> (5 minutes) 2. Make connections (15 minutes) ○ Computer Science ○ Impacts of AI 3. Student Activity: Draw a picture and write a sentence about using an AI helper (10 minutes)	● Teacher device for accessing ○ Teacher Guide ○ Slides ● Student Activity Materials ○ Unplugged: ■ Paper ■ Pencils ■ Crayons, markers, or colored pencils ○ Plugged: ■ Student Device ■ Application that allows students to draw and write or record

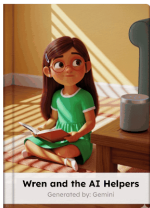
Before using this activity

1. Read this guide and review the [presentation slides](#) including the speaker notes which include a script you can use
2. Review background knowledge:
 - How does Alexa work?
 - [Amazon](#)
 - [Reolink: How Does Alexa Work? Inside Amazon's AI Assistant](#)
 - How do recommendation systems work?
 - [The Decision Lab: Recommender System](#)
 - [Scientific American: How Recommendation Algorithms Work—And Why They May Miss the Mark](#) (2023)
 - [NVIDIA: What Is A Recommendation System?](#)
 - [Introduction to Recommendation System || Data Science in Minutes](#) (Video, 2020)
3. If you need to change the presentation slides provided in any way, [USE TEMPLATE here](#) to make your own copy of the slides that you can modify to:
 - Skip or remove slides not needed
 - Update images and/or text on slides, as needed
 - Add additional slides, as needed

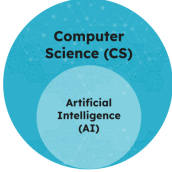
Teacher Guide: Is AI Magic?

How to use this activity

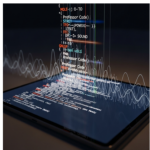
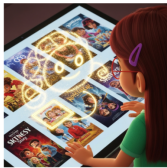
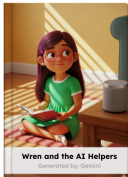
All slides have speaker notes which can be used as a script. This text should be reviewed to ensure the content is being covered even if the script will not be used. The information below includes additional information you may need to complete, extend, or modify the learning activity.

 Is AI Magic?	Slide 1: Essential Question - Is AI Magic The goal of this activity is that students will be able to: • Identify that AI is NOT magic • Identify that AI is part of Computer Science • Define Computer Science in an age-appropriate way • Define Artificial Intelligence in an age-appropriate way • Identify some uses and impacts of AI in daily life If you generate your own story or use a book, you will need to update the script in the speaker notes.
	Slides 2-12: Generated Story This story was generated by the Google Gemini Storybook GEM using the prompt “Generate a story for a 6 year old about the AI helpers they may encounter in their daily lives including recommender systems, smart speakers, text-to-speech and speech-to-text, and more. Ground the story in the fact that computer science powers AI.” Some edits were made when the story was transferred to the slides including a title change. You can read or listen to the original generated story at https://gemini.google.com/share/86876751d426. You may wish to generate your own story using Gemini Storybook to include technology you know your students use OR you may have a book you wish to use instead. You may need to use a personal Google account to generate a story with Gemini Storybook and if using your Google Workspace EDU account does work, you will not be able to share your created story publicly. If you use a book, it will likely not have the specific emphasis on computer science powering AI innovation. Here are some books that could be used: • Zoe and Zephy: Her AI helper AI systems: AI assistant/smart speaker, text-to-speech, speech-to-text, natural language processing ◦ YouTube Read Aloud ◦ Author site about book • AI Club: AI In Your Life (Chapters 3-6) Chapter 3: Smart speaker, text-to-speech, speech-to-text, natural language processing; Chapter 4: Navigation, self-driving cars; Chapter 5: Recommender Systems; Chapter 6: Smart speaker, text-to-speech, speech-to-text, natural language processing ◦ AI Club website ◦ Amazon

Teacher Guide: Is AI Magic?

	- The Digital Adventures of Ava and Chip: Smart City Multiple AI technologies are included in this (and the other Ava and Chip books) The Digital Adventures of Ava and Chip website Smart City YouTube Read Aloud If you generate your own story or use a book, you will need to update slides 2-12 and slides 19-21 (or 22) for your chosen book or story; and you will need to update the script in the speaker notes of other slides, as well.
AI Is NOT Magic! 	Slide 13: AI Is NOT Magic! If you generate your own story or use a book, you will need to update the script in the speaker notes.
AI is part of Computer Science (CS) 	Slide 14: AI is part of CS If you generate your own story or use a book, you will need to update the script in the speaker notes.
What IS Computer Science (CS)? Computer Science Using the power of computers to solve problems and express ourselves	Slide 15-16: Define Computer Science If your students are currently completing CS lessons, it would be good to remind them of things they have done in their computer science lessons so they have some background to tie this to. If your students are not completing CS lessons, it could be a good idea to add some context by talking about things that CS lets us do like using devices (phones, tablets, laptops) in our lives for school, work, communication, and pleasure. This definition is a kid-friendly definition. The definition of computer science currently found in the CSTA glossary is: <i>The study of computers and algorithmic processes, including their principles, their hardware and software designs, their implementation, and their impact on society.</i>
What IS Artificial Intelligence (AI)?	Slide 17-18: Define Artificial Intelligence If you generate your own story or use a book, you will need to update the script in the speaker notes for slides 17 and 18. The definition is a lower-elementary friendly definition. Fields of CS defines artificial intelligence as: <i>AI is a human-made system, such</i>

Teacher Guide: Is AI Magic?

Artificial Intelligence Machines that <i>can</i> make good decisions	<i>as a computer program, that exercises problem-solving or decision-making abilities normally associated with humans.</i> The updated CSTA Glossary for 2026, defines artificial intelligence as: <i>Computer-based systems that use data, rules, or models to perform tasks that usually require human intelligence, such as recognizing patterns, making predictions, understanding language, solving problems, or making decisions.</i>
What technology did Algo use?  Speech to Text  Text to Speech	Slide 19: What technology did Algo use? When Wren is interacting with Algo, she is using speech-to-text technology to communicate with a smart speaker/voice assistant. This machine takes in speech as input from a sensor and uses automatic speech recognition (ASR) technology to convert the audio to text. Then, algorithms for natural language understanding identify the intent, extract key details, find an appropriate response, and then use text-to-speech technology to convert the response to audio that plays back on the device as output you can hear. If you generate your own story or use a book, you will need to update or remove this slide.
What technology did Bitsy use?  Recommendation System	Slide 20: What technology did Bitsy use? Recommendation systems use unsupervised machine learning to recognize patterns in our behavior to predict what we might like based on things we have liked in the past and things that other people like us have liked in the past. If you generate your own story or use a book, you will need to update or remove this slide.
Did you notice?  Wren and the AI Helpers	Slide 21: Did you notice? Students may have noticed some or all of the following as possible poor decisions by Google Gemini: • The trim around the collar and sleeves of Wren’s dress changes on some pages: white trim on the cover (slide 2) and on slide 3, light green trim on slide 6, and no trim color (just the same green as the dress) on the other slides of the story • Wren is not wearing socks on the cover (slide 2) but is on slide 3 • The tablet has a display facing away from Wren on slide 6 • Book titles and “code” are odd • Slide 8 is in a more realistic style than the other slides of the story • Wren has lots of freckles on the last page of the story (slide 12) • Wren’s mouth shape is different on slides 3 and 12 compared to the other slides in the story

Teacher Guide: Is AI Magic?

	It is recommended to extend the discussion and make connections to the impacts AI is having and to Language Arts through questions like those below. There are not currently additional slides with these prompts but you may want to select one or more of them and add additional slides. • Would people learn to write their own stories if they always had an AI do it? • Who does it help that AI can generate stories and pictures? • Who might it harm that AI can generate stories and pictures? • How could we make the story better or more interesting? If you generate your own story or use a book, you will need to update or remove this slide.
 What Is Your Favorite AI Helper? OR What AI Helper Would You Like To Have?	Slide 22: Student Activity Students will draw a picture and write a sentence about using an AI helper. This could be about an AI they are already using in their lives or one they imagine they would like to have. Students could do this individually or could work with a partner. Students could also do this using an app like Seesaw to draw and label their AI and then record what the AI would do rather than writing what it would do. If you generate your own story or use a book, you will need to update this slide and the script. The slide may be usable as is but the script would need to change.
Credits • Presentation created by Vicky Sedgwick • Images and text on slides 2-12 generated by Google Gemini Storybook GEM • Images on slides 19-21 generated by Google Gemini Storybook GEM • Image on slide 22 generated by Google Gemini	Slide 23: Credits • Presentation created by Vicky Sedgwick originally for AIforCA • Images and text on slides 2-12 generated by Google Gemini Storybook GEM • Images on slides 19-21 generated by Google Gemini Storybook GEM • Image on slide 22 generated by Google Gemini

Teacher Guide: Is AI Magic?

Standards and Guidelines

This learning activity is aligned with the following standards and guidelines, though the standards or guidelines may not be fully met.

COMPUTER SCIENCE STANDARDS

CSTA COMPUTER SCIENCE STANDARDS	CA COMPUTER SCIENCE STANDARDS
2026 STANDARDS EK-SOC-HU-15: Explain that people design and develop computing technologies. EK-SOC-CE-16: Identify how people use digital devices at home, at school, and at work. E1-SOC-HI-14: Compare how an everyday activity changed after a specific computing technology was introduced. E1-SOC-CE-16: Describe how computing is used by people at home, at school, and in the community. E2-SYS-IM-13: Describe the benefits and harms that arise from an individual's use of computing systems and digital tools. 2017 STANDARDS 1A-IC-16 Compare how people live and work before and after the implementation or adoption of new computing technology.	K-2.IC.18 Compare how people lived and worked before and after the adoption of new computing technologies.

AI4K12 GUIDELINES

Big Idea 5 - Societal Impact

- AI & Culture (AI in Daily Life)
5-B-i K-2 LO: Identify devices in daily life that use AI technologies.
- AI & the Economy (Impacts of AI on Sectors of Society)
5-C-i K-2 LO: Identify current uses of AI and how they have impacted society. / EU: Society has undergone changes because of AI and this will continue in the future.