Google

Understanding AI

Foundational AI literacy for Grades 2nd-8th

Be Internet Awesome.

June 2025

Welcome to The Basics of Artificial Intelligence (AI) Literacy!

These lessons are designed to give elementary and middle school students a solid foundation in AI literacy, ensuring that they're prepared for safe and informed interactions with AI as they grow. They also provide valuable understanding for students who might already be encountering AI at home or at school. Please note that these lessons **prioritize building understanding and critical thinking about AI**, rather than instructing elementary and middle school students on how to use AI tools directly.

In these lessons students will learn to:

- **Recognize** examples of AI in their daily lives and identify helpful tasks that AI can do.
- **Describe** that generative AI is a human-created computer program that uses data to perform specific tasks.
- **Define** digital citizenship and identify characteristics of a responsible and respectful digital citizen.
- **Explain** that AI-generated information may not always be true or fair due to mistakes by the technology and biases in data, and describe the implications of misinformation.
- **Evaluate** scenarios using their understanding of what AI is, how AI works, and how to use it responsibly and safely.

For teachers who might feel unfamiliar with the subject of AI, these lessons are here to help. Each lesson provides complete, ready-to-use content. The lessons are structured like scripts, to guide classroom discussions, beginning with the "Let's talk" section. Italicized text is meant just for the teacher as instructional guidance. Also, activities and handouts are included in the lessons, and offer fun ways for students to lock in the learning.

Now, prepare to develop the AI literacy skills necessary for your students to be confident, safe, and insightful users of AI.

We would like to thank our trusted partners for helping us bring these lessons to life.

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Lesson 1

What is AI?

Lesson 1

What is AI?

Students learn the basics of artificial intelligence (AI)—what it is and how it works.

About this lesson

This is the first of three lessons that will help you build your AI brain power! We'll start by exploring the basics of AI, a computer tool, by looking at the tasks it can do and how it gets them done. This will get you ready to use AI in a smart and safe way.

This lesson should take about 45 minutes, including time for the activity. Allow for variations in time to account for different literacy levels, number of examples shared, and activity length.

Goals for students

- ✓ **Identify** at least three helpful tasks AI can do.
- ✓ **Explain** how AI needs data to work and that data comes in many forms.
- ✓ **Define** what AI is and list at least two characteristics.
- ✓ **Describe** that generative AI uses prompts to make new things.

Let's talk

Have you ever played a game or used an app that suggested another game, video, or song you might like? Or told you, 'If you liked this, you'll love that!'? *(Pause for student responses)*. Or maybe you've asked a smart speaker to play music or tell a joke? Guess what? Many of these things are powered by AI!

In this lesson, we're going to talk about AI, which stands for artificial intelligence. You probably have heard about AI before, and maybe even used it! Or this may be brand new to you. No matter what your experience is with AI this lesson will help you understand more about what AI is and how it works!

What do you already know about AI?

To get started, what are some toys, games, or devices you've seen or used that can follow instructions or provide information to you?

Lesson 1

What is AI?

Students learn the basics of artificial intelligence (AI)—what it is and how it works.

Let's talk

Possible answers to listen for:

- ***App on phone:*** *It can tell you directions to where you want to go.*
- ***Smart speakers:*** *I ask it to play music or tell me jokes.*
- ***Video games:*** *Other characters in the game learn how I play.*
- ***Educational app:*** *I'm using an app to learn a second language and it tells me if I say words correctly.*
- ***Streaming services:*** *They know what movies I watched and suggest new ones.*
- ***Art app:*** *I type in words and it draws a picture of it.*

What is AI?

Many of these use AI, or artificial intelligence. **Artificial intelligence (AI)** is a type of technology that can make predictions, take actions, and create content. AI is like a tool that can be taught to learn, think, and create similarly to how people do. For example, we can teach it to:

- ✓ **See** things (like telling the difference between a cat and a dog)
- ✓ **Understand** words (like answering your questions)
- ✓ **Make** choices (like figuring out the best way to get to school)

What can AI do?

AI can help with so many things! It wears different "hats" or does different "tasks." Here are five main tasks AI can do:

- **Finder:** AI can suggest new things you might like, like a new game or a video.
- **Assistant:** AI can listen to your question and give a unique response.
- **Personalizer:** AI can change things just for you, like making a game easier if you're stuck or showing you a special message.
- **Maker:** AI can create brand new sounds, pictures, videos, or words.
- **Organizer:** AI can sort things out for you, like putting your photos into special folders or helping you find the quickest way to get somewhere.

Lesson 1

What is AI?

Students learn the basics of artificial intelligence (AI)—what it is and how it works.

How AI Works: Its Secret Ingredients and Special Task

Now that we know some of the tasks AI does, let's look closer at how it does them, especially one exciting task: Making new things!

AI's secret ingredients: Data

AI works by using something called data. Think of **data** as all the tiny pieces of information AI needs to do its task. It's like the ingredients for a recipe! Just like you need flour, sugar, and eggs to bake a cake, AI needs lots of ingredients—like pictures, sounds, words, or numbers—to understand things and learn. The more good ingredients AI has, the better tasks it can do!

How AI creates: Finding patterns and predicting

When AI has all its ingredients (data), how does it actually make something new? Well, let's continue to imagine ourselves as bakers. As a baker, you've baked a lot of cakes before. And over time, you start to notice patterns: "Oh, when I use more sugar, the cake is sweeter!" or "If I mix the batter longer, it gets fluffier."

AI does something similar! It looks at all its ingredients (data) and finds patterns. It notices how different ingredients (like certain words or types of pictures) usually go together. Then, based on these patterns, AI tries to guess what comes next. This is called **predicting**.

But sometimes, even the best bakers make a mistake with a cake, and sometimes AI can make mistakes when it predicts. So, always remember to double check that AI's response is accurate. If you're not sure, ask your teacher, a librarian, or another trusted adult!

The maker task: Generative AI

One of AI's amazing tasks is being a Maker! This type of AI is called generative AI. Imagine you want to bake a brand new kind of cake, one that no one has ever seen or tasted before! That's a bit like what generative AI does. It's a special kind of tool that can whip up something totally new! **Generative AI** is a type of AI that can generate (or create) new content, like stories, poems, or even new pictures.

Lesson 1

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Students learn the basics of artificial intelligence (AI)—what it is and how it works.

How AI Works: Its Secret Ingredients and Special Task

Giving instructions: Prompts

When you order a cake, a baker needs to know what kind of cake you want, right? You tell them, "I want a chocolate cake with sprinkles!"

It's the same for generative AI. It needs us to tell it what to create! We do this by giving it prompts. **Prompts** are the words you type or say to tell AI what to do. It's like telling the AI baker your recipe idea or asking it a question about an ingredient.

You can "prompt" AI to make a story about a flying dog, or draw a picture of a dinosaur wearing a hat, or even write a short poem. It's a bit like how you type something into a search engine to find information, but with generative AI, you're asking it to make something brand new, not just find something that already exists!

Activity guidance

Now, let's try an activity to see if you can spot AI doing its tasks!
(Pass out handouts)

On your handout, you'll see a list of these five AI roles: Finder, Assistant, Personalizer, Maker, and Organizer. Below that, there are some examples of AI in action. Your job is to figure out which AI task is happening in each example.

Let's do the first one together. The example says: 'A game on your tablet tells you, 'You did great! Try this new level next!'' Which AI task is that? Is it finding and recommending something new? Is it acting as an assistant? Is it personalizing the game for you? Or making something new? Or organizing? *(pause for student responses)*. I think it's acting like a Finder because it's suggesting something you might like to do next! So, I would write 'Finder' on the line.

Now it's your turn! Read the rest of the examples on your handout and write down which AI task you think it is.

Vocabulary

Artificial intelligence	A type of technology that can make predictions, take actions, and create content.
Data	Information AI needs to do its task.
Generative AI	A type of AI that can generate (or create) new content, like stories, poems, or even new pictures
Prompt	The words you type or say to tell AI what to do.
Predicting	Based on patterns, AI tries to guess what comes next.

Key takeaway

Share this key takeaway with your class after concluding the following activity.

In this lesson, you discovered that AI is a type of technology that learns from lots of data (information), which are like its secret ingredients. AI uses these ingredients to find patterns, which helps it do many cool tasks. It can be a Finder to suggest things you'll like, an Assistant to answer your questions, a Personalizer to change things just for you, a Maker to create new stuff like pictures or stories, and an Organizer to help sort things out. Now you're ready to identify what AI is doing all around you!

Activity

Exploring Tasks AI Can Do

Goal for students

To identify different tasks that AI does and understand that AI needs various types of data to perform these tasks.

Materials needed

Handout:
"Exploring Tasks AI Can Do" (one per student)

Note to teacher

This activity asks students to identify the tasks AI can do. Students likely won't fully understand the details of AI quite yet, and that is okay! Encourage them to try their best based on what they know about ways that AI can help us with our daily lives. It's really important that students write down their thinking behind their choice. This will reinforce the importance of using critical thinking when exploring AI. The most important part of this activity is to focus on the thinking behind students' choices.

Optional modifications:

- *Allow students to first work with a partner to complete the activity.*
- *After partner work time, consider writing the examples on poster paper that can be hung across the room. Give students sticky notes. With their partners, ask students to write their responses on sticky notes and add them to the posters. After 10 minutes, allow students to engage in a gallery walk where they view each of the posters and their classmates' responses.*

Activity

Exploring Tasks AI Can Do

Instructions

Have you ever noticed how some apps, games, or toys seem to think and do things all by themselves? That's thanks to something called AI. AI acts like a "tool" that can do lots of cool tasks!

Let's learn about five different tasks AI can do. Read each task carefully.

Then, look at the examples that follow. For each example, decide which of the five AI tasks best describes what AI is doing. Write the name of the AI task next to the example. If you're not sure—think about how AI is helping in the example!

Class discussion

After students have completed their worksheets, lead a class discussion using the prompts below.

"Thinking about all the different AI tasks we learned about—Finder, Assistant, Personalizer, Maker, and Organizer—which one do you think is the most helpful to you in your daily life? Why?"

- *This helps students connect the concepts to their own experiences and articulate the purpose of each AI task.*

"Can you think of a new example of an AI tool doing one of these tasks that wasn't on our activity sheet? Tell us which task it is and what AI does!"

- *This encourages students to apply their understanding beyond the provided examples and demonstrate comprehension.*

"Why do you think it's important for us to know about these different tasks that AI can do?"

- *This prompts students to think about the bigger picture and the relevance of AI literacy.*

Activity

Exploring Tasks AI Can Do

Let's explore the tasks of AI! Think about a smart speaker or an app on a parent's phone. What can it do? (e.g., play music, tell a joke, answer a question). These are things AI helps to do!

Directions

1. Read the following descriptions of the different tasks that AI can do.
2. Then, read each example.
   Think about what task AI is doing in that situation.
3. Write your answer (AI task) on the line provided for each example.

Remember, the five main tasks of AI are:

1. **Finder:** This AI tool **suggests** things you might like, like a new game or a video.
2. **Assistant:** This AI tool **talks and listens** to you, like when you ask it a question.
3. **Personalizer:** This AI tool **changes things just for you**, like making a game easier if you're stuck.
4. **Maker:** This AI tool **creates or changes** sounds, pictures, or words..
5. **Organizer:** This AI tool **sorts things out** for you, like putting your photos in order.

Activity

Exploring Tasks AI Can Do

Examples:

1. A game on your tablet tells you, “You did great! Try this new level next!” **Which AI task is this?** Explain why:

2. You say, “Hey smart speaker, play a fun song!” and it starts playing music. **Which AI task is this?** Explain why:

3. An app lets you put silly glasses on your picture. **Which AI task is this?** Explain why:

4. Your photo app puts all your pictures of animals into a special folder. **Which AI task is this?** Explain why:

Activity

Exploring Tasks AI Can Do

Examples:

5. An online math game gives you more challenging questions as you learn. **Which AI task is this?** Explain why:

6. You ask a phone app, "What's the weather like today?" and it tells you if it will be sunny or rainy. **Which AI task is this?** Explain why:

7. A movie app shows you movies it thinks you'll like to watch because you watched similar ones last week. **Which AI task is this?** Explain why:

8. An online storybook app changes how fast it reads the words out loud based on how quickly you turn the pages. **Which AI task is this?** Explain why:

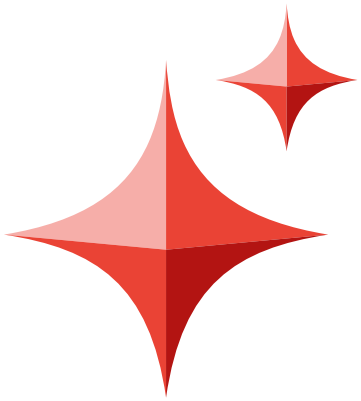
Activity

Exploring Tasks AI Can Do

Examples:

9. You use a special website to type words and then choose a button to make them sound like a singing robot. **Which AI task is this?** Explain why:

10. Your calendar app sends you a reminder about your friend's birthday party next week, so you don't forget. **Which AI task is this?** Explain why:



Activity

Exploring Tasks AI Can Do

Answer Key

Exploring Tasks AI Can Do

Example	Which AI role is this	Explain why
1. A game on your tablet tells you, "You did great! Try this new level next!" **Which AI task is this?**	**Personalizer**	*This AI tool changes the game just for you by suggesting when you are ready for a new level.*
2. You say, "Hey smart speaker, play a fun song!" and it starts playing music. **Which AI task is this?**	**Assistant**	*This AI tool listens to your command and does what you ask.*
3. An app lets you put silly glasses on your picture. **Which AI task is this?**	**Maker**	*This AI tool changes your picture by adding something new (the silly glasses).*
4. Your photo app puts all your pictures of animals into a special folder. **Which AI task is this?**	**Organizer**	*This AI tool sorts your photos and puts them into a special group for you.*
5. An online math game gives you more challenging questions as you learn. **Which AI task is this?**	**Personalizer**	*This AI tool changes the questions just for you, making them harder as you get better at math.*
6. You ask a phone app, "What's the weather like today?" and it tells you if it will be sunny or rainy. **Which AI task is this?**	**Assistant**	*This AI tool talks and listens to you, answering your question about the weather.*
7. A movie app shows you movies it thinks you'll like to watch because you watched similar ones last week. **Which AI task is this?**	**Finder**	*This AI tool suggests new movies you might like based on what you've enjoyed before.*

Activity

Exploring Tasks AI Can Do

Answer Key

Exploring Tasks AI Can Do		
Example	**Which AI role is this**	**Explain why**
8. An online storybook app changes how fast it reads the words out loud based on how quickly you turn the pages. **Which AI task is this?**	**Personalizer**	*This AI tool changes the reading speed just for you, making it fit your own pace.*
9. You use a special website to type words and then choose a button to make them sound like a singing robot. **Which AI task is this?**	**Maker**	*This AI tool creates or changes sounds (your words into a robot song).*
10. Your calendar app sends you a reminder about your friend's birthday party next week, so you don't forget. **Which AI task is this?**	**Organizer**	*This AI tool sorts things out for you, like your schedule, and helps you remember important events.*

Lesson 2

Digital Citizenship and AI

Lesson 2

Digital Citizenship and AI

Students learn the value of being digital citizens, for themselves and for others, while they're using AI.

About this lesson

This is the second of three lessons that will help you build your AI brain power! In this lesson, we're going to explore how we can be good digital citizens when we use computer tools like AI. Being a digital citizen means being kind and smart when you're online, just like being a good neighbor in your real-life community. We'll learn what that means when we use AI and think about how our actions can affect ourselves and others when we play with AI or use it to create cool things. You'll get to share your own ideas and experiences about being a good digital citizen with AI throughout this lesson, so get ready to chat!

This lesson should take about 45 minutes, including time for the activity. Allow for variations in time to account for different literacy levels, number of examples shared, and activity length.

Goals for students

- ✓ **Define** digital citizenship and list at least two characteristics.
- ✓ **Explain** how digital citizenship relates to AI.
- ✓ **Describe** that good digital citizenship supports a healthy use of AI.
- ✓ **Recognize** and **demonstrate** safe and responsible actions when faced with different situations involving online activities and when using AI.

Lesson 2

Digital Citizenship and AI

Students learn the value of being digital citizens, for themselves and for others, while they're using AI.

Let's talk

What does it mean to be a good neighbor in our community? How do our actions affect those around us?

Possible answers to listen for:

- *Being a good neighbor means being kind to everyone. Our actions can make people feel happy or sad.*
- *A good neighbor is someone who takes care of our neighborhood. Like, not throwing trash on the ground, and saying hello when you see people. Even little things, like smiling at someone, can make them feel good.*
- *Good neighbors know that we all live together and have a responsibility to make our community safe and enjoyable. If we are responsible and respectful, it can encourage others to be the same.*

AI is powerful, and using it means we need to be smart and careful. Think of it like this: if you have a fast scooter or bike, you need to use it safely so it doesn't hurt anyone, right? It's the same with AI!

When you use AI, you're part of a huge online neighborhood. Just like in your real-life neighborhood, being a good digital citizen means being kind, helpful, and thinking about how your actions affect other people.

When you act in ways that help everyone, the internet becomes a safer and more fun place for all of us. That makes you a good digital citizen. Practicing good **digital citizenship** means you try to do the right thing for others, not just for yourself, especially when you're online or using AI.

Lesson 2

Digital Citizenship and AI

Students learn the value of being digital citizens, for themselves and for others, while they're using AI.

Let's talk

Our online neighborhood and AI

When you use AI, you're not just playing by yourself. You're part of a bigger digital neighborhood, and your actions can affect others.

Here are four important aspects of digital citizenship:

1. Privacy:

Privacy means deciding who gets to know things about you and who doesn't. Imagine you have a secret clubhouse with a special key. You, and only you, get to decide who receives a copy of that key to come inside. In the same way, protecting your privacy online is about controlling access to your personal information. You get to decide what details you share and who is allowed to see them. While it's hard to keep everything totally private online, there are smart steps you can take to keep your information as safe as possible.

Here are some ways you can be a privacy protector when using apps, games, and AI:

- **Team Up with a Grown-Up:** When you first use a new game or app, always do it with a parent or another trusted grown-up. They can help you get set up and keep your information private.
- **Make Smart Sharing Choices:** Before you share anything online, think carefully about what's okay to share and what's private. Never share personal things like your home address or phone number.
- **Play Safely with People You Know:** The safest way to play online games is with friends you already know in real life. If you're in a game with people you don't know, keep your chat about the game itself. It's not safe to talk about personal things like your name or where you live with strangers.
- **Be Honest About Your Age:** When you sign up for apps or games, always tell the truth about how old you are. Many apps and websites give kids extra protections to help keep them safe, but only if they know you're a kid!

Lesson 2

Digital Citizenship and AI

Students learn the value of being digital citizens, for themselves and for others, while they're using AI.

Let's talk

- **Ask for Help if Something Upsets You:** If something online or with AI ever makes you feel worried, sad, or upset, please tell a parent, teacher, or another trusted grown-up right away. You don't have to deal with tough stuff alone!

2. Responsible behavior:

Responsible behavior online means being kind, respectful, and thinking about the lasting impact of your actions. Just like in real life, what you do online can have a big effect.

If you use AI to make new things like funny pictures, videos, or stories, it's super important to stop and think:

1. Could this picture or story help someone, or could it hurt someone?
2. Could it trick someone into believing something that isn't true?
3. Would this be unfair to you or someone else?

If you think it might cause a problem, it's smart to question if you should share it. Your digital footprint (everything you do and share online) can last even after things are deleted.

And remember that there's a real person on the other side of the screen. Treat others online with the same kindness and respect you would show them in person. This also applies to how you interact with AI. While AI isn't human, being polite and clear in your interactions can help you get the best results and reinforce good habits.

Lesson 2

Digital Citizenship and AI

Students learn the value of being digital citizens, for themselves and for others, while they're using AI.

Let's talk

3. Figuring out what's trustworthy:
Figuring out what's trustworthy means learning how to tell if something you see or hear on the internet is accurate and helpful, or if it's just pretend. It's like being a detective and looking for clues!

Sometimes, things online might look exciting or even a little scary, but they aren't trustworthy. Ask yourself: "Could this really happen?" or "Is this just pretend?" This helps you not fall for things that are false or misleading.

When you see something online, try to figure out who shared it. Is it from someone you trust, like your teacher or a grown-up? Or is it from a place you don't know well? Knowing who shared it can help you decide if you can trust the information.

4. Using AI in a positive way:
It's important to be fair and honest when you use computer tools like AI. AI can be a helpful friend, but we need to use it wisely!

AI is a tool, not a cheater: Think of AI like a smart robot that can help answer your questions or draw pictures. It can give you ideas or get you started, but it's important to use your own brain, too! Your ideas are special and important.

Tell everyone when AI helped: If a computer tool like AI gives you ideas for a story or helps you make a drawing, it's a good idea to tell your teacher or friends that AI helped. It's like saying "thank you" to your tools and being honest about how you made something.

Lesson 2

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Let's talk

Helping AI learn wisely: AI learns from the "ingredients" (data) we give it. When you use AI and give it prompts, you're actually helping it learn even more! The questions you ask, or the things you tell it to do, teach AI. So, being a good digital citizen also means thinking about whether you're teaching AI to be helpful and kind, or if you're teaching it to be tricky or mean. Always use AI with a trusted grown-up so they can help make sure AI learns good habits, too!

Activity guidance

Let's practice being digital citizens together!
Pull out your handout and let's do the first scenario together!

Read Scenario 1 from the "Being a Good Digital Citizen" handout as a class.

Scenario 1: New Game Time!
You want to play a super fun new game that needs you to make an account.

- ☐ Option A: Ask a parent or a trusted grown-up to help you make the account.
- ☐ Option B: It's just a game for kids, so you can make the account all by yourself.

Then, lead a discussion using these questions:

- "Why is Option A the smartest and kindest choice for a good digital citizen?" *(Guide them to talk about privacy and safety.)*
- "What might happen if you choose Option B and make the account all by yourself?" *(Encourage them to think about potential risks like sharing too much information or agreeing to things they don't understand.)*
- "How does asking a grown-up for help connect to being a responsible digital citizen?" *(Help them see that asking for help is a responsible choice.)*

Vocabulary

Digital citizenship	Trying to do the right thing for others, not just for yourself, especially when you're online or using AI.
Privacy	Deciding who gets to know things about you and who doesn't.
Responsible behavior	Being kind, respectful, and thinking about the lasting impact of your actions.

Key takeaway

Share this key takeaway with your class after concluding the following activity.

In this lesson, you learned that being a good digital citizen means being kind and responsible when you're online and using AI. We talked about important ways to do this: keeping your privacy safe, using responsible behavior by being kind and thinking before you share, figuring out what's real online, and using AI in a fair way as a tool. Remember that your actions online and with AI affect others, and you can always ask for help!

Activity

Practicing Digital Citizenship

Goal for Students

To understand that being a good digital citizen means making smart and kind choices when using the internet and AI, for themselves and for others.

Materials needed

Handout:
"Being a Good Digital Citizen" (one handout per student)

Instructions

Hi, Digital Citizens! We've learned that being a good digital citizen means making smart and kind choices when we're online and using computer tools like AI. Read each story below and think about what a good digital citizen would do.

1. Choose the option that you think is the smartest and kindest choice. Place a checkmark or an 'X' in the box next to your choice.
2. Then, explain why you think that is the smartest and kindest choice on the lines provided!

Activity

Practicing Digital Citizenship

Class discussion

Now that your students have completed the good digital citizen activity, take the learning a step further. Have a class discussion about what it means to be a good digital citizen when we use AI.

This discussion is designed to help students think out loud about how they can be smart and safe online, especially with AI. These are important ideas, so giving students clear examples will help them connect to the concepts. You can guide this as a whole class discussion, or have students talk with a partner first before sharing with everyone. Be sure to encourage students to connect their answers from the "Being a Good Digital Citizen" activity to these bigger ideas.

Questions for discussion:

Imagine you used a computer tool (AI) to create a picture that made someone look silly or unhappy, and then you shared it online.

- How might this affect you? *(e.g., you might feel bad, get in trouble)*
- How might this affect the other person in the picture? *(e.g., they might feel sad, embarrassed, or angry)*
- How might this affect other people online who see the picture? *(e.g., they might think it's okay to do mean things, or they might feel worried)*

Now, thinking about that same example: If someone uses AI to create a mean or tricky picture like that, what parts of being a good digital citizen are they not doing?

- How does it connect to Privacy? *(e.g., not asking before sharing someone's picture, not respecting their space)*
- How does it connect to Responsible Behavior? *(e.g., not being kind, not thinking before you share, not doing things that could hurt others)*
- How does it connect to Figuring Out What's Reliable Online? *(e.g., making something fake that could trick people)*
- How does it connect to Using AI in a Good Way? *(e.g., not using AI to be helpful, being mean or tricky)*

Activity

Practicing Digital Citizenship

Directions

Read each story below and think about what a good digital citizen would do.

1. Choose the option that you think is the best choice for being a good digital citizen. Place a checkmark or an 'X' in the box next to your choice.

2. Then, explain why you think that is the best choice on the lines provided.

Scenario 1: New Game Time

You want to play a super fun new game that needs you to make an account.

☐ Option A: Ask a parent or a trusted grown-up to help you make the account and look at the game's rules together.

☐ Option B: It's just a game for kids, so you can make the account all by yourself.

Explain why:

Activity

Practicing Digital Citizenship

Scenario 2: Funny photo of your friend

You take a funny picture of your friend playing at school.
You think it would be hilarious to post online.

☐ Option A: Post it right away, because it's so funny!

☐ Option B: Ask your friend if it's okay to share the picture online first.

Explain why:

Scenario 3: Seeing a silly video online

You see a video online that looks like a cat flying a spaceship!
It seems so real, but it also seems a little bit impossible.

☐ Option A: Believe it right away and tell all your friends it's true!

☐ Option B: Think, "Hmm, is this really real? Maybe I should ask a grown-up if they think it's true."

Explain why:

Activity

Practicing Digital Citizenship

Scenario 4: Use AI for your homework

Your teacher asks you to write a story about a brave knight. You know a computer tool (AI) can write stories, too!

- ☐ Option A: Ask AI to write the whole story for you and say you wrote it yourself.
- ☐ Option B: Ask AI for some ideas to get started, and then write your own story using your own words.

Explain why:

Scenario 5: Feeling Worried Online

You're playing an online game and a person you don't know starts asking you questions like, "How old are you?" and "Where do you live?"

- ☐ Option A: Tell them your age and where you live, so they can be your new friend.
- ☐ Option B: Don't tell them personal things and keep the chat only about the game.

Explain why:

Activity

Practicing Digital Citizenship

Answer Key

Being a Good Digital Citizen

Scenario	Answer	Explain why
1. **New Game Time:** You want to play a super fun new game that needs you to make an account.	**Option A**	*Grown-ups can help you understand what information the game needs and make sure it's safe for you. It's part of protecting your privacy and being responsible by getting help when you need it.*
2. **Funny photo of your friend:** You take a funny picture of your friend playing at school. You think it would be hilarious to post online.	**Option B**	*It shows responsible behavior and respect for your friend. Even if something is funny to you, it might not be funny to them, and they have a right to decide if their picture is shared.*
3. **Seeing a silly video online:** You see a video online that looks like a cat flying a spaceship! It seems so real, but it also seems a little bit impossible.	**Option B**	*This is the best choice for figuring out what's real online. Not everything you see on the internet is true! Asking a grown-up helps you check if something is real before you believe it or share it with others, which is part of responsible behavior.*
4. **Use AI for your homework:** Your teacher asks you to write a story about a brave knight. You know a computer tool (AI) can write stories too!	**Option B**	*This is the best choice because it's about using AI in a good way. AI is a tool, but it's important to use your own brain and ideas for your schoolwork. It's also being honest about your own work.*
5. **Feeling Worried Online:** You're playing an online game and a person you don't know starts asking you questions like, "How old are you?" and "Where do you live?"	**Option B**	*This is the smartest and kindest choice for protecting your privacy. You should never share personal information with people you don't know in real life. It's a key part of responsible behavior and keeping yourself safe online.*

Additional Activity Idea (tailored to grades 2-3)

Digital Citizen Choice Cards

This activity helps younger students understand the four key aspects of digital citizenship by sorting actions into “Good Digital Citizen” and “Not a Good Digital Citizen” categories.

Goal for students

To recognize what makes a good digital citizen and practice sorting online actions into helpful or unhelpful choices.

Materials needed

Printed “Choice Cards”: Create small cards (one action per card) with simple sentences and a small, clear icon or drawing.

- Print enough sets for small groups of 3–4 students, or one large set for whole-class sorting.

Two Sorting Mats or Areas: Label one mat/area “Good Digital Citizen Choices” and the other “Not a Good Digital Citizen Choice.” (You could draw happy / sad faces or thumbs up / down.)

Additional Activity Idea (tailored to grades 2-3)

Digital Citizen Choice Cards

Preparation

1. **Create Choice Cards:** On separate cards, write or draw one action for each. Keep sentences very short and clear. Examples:
   - "Ask a grown-up before sharing my name online." (Privacy)
   - "Tell a friend that I saw a funny video of them, but I didn't share it without asking." (Responsible Behavior)
   - "See a picture of a talking dog online and ask my teacher if it's real." (Figuring Out What's Real Online)
   - "Use a computer tool (AI) to get ideas for my drawing, but draw it myself." (Using AI in a Good Way)
   - "Post a picture of my friend online without asking." (Responsible Behavior)
   - "Tell a stranger my favorite color and my school name online." (Privacy)
   - "Believe everything I see on the internet." (Figuring Out What's Real Online)
   - "Have the computer tool (AI) write my whole story for school." (Using AI in a Good Way)
   - "Tell a grown-up if something online makes me feel sad." (Responsible Behavior/Privacy - asking for help)
2. **Prepare Sorting Mats:** Draw a clear line on the floor or use two large pieces of paper labeled as described above.

Instructions

1. **Introduce the Activity (5 minutes):**
   - "We've been talking about what it means to be a digital citizen—someone who makes smart and kind choices when using the internet and computer tools like AI. Today, we're going to be digital citizen detectives!"
   - "We have two special spots: 'Good Digital Citizen Choices' (point to happy mat) and 'Not a Good Digital Citizen Choice' (point to sad mat). Our task is to read each card and decide where it belongs."
   - "Tell a grown-up if something online makes me feel sad." (Responsible Behavior/Privacy—asking for help)

Additional Activity Idea (tailored to grades 2-3)

Digital Citizen Choice Cards

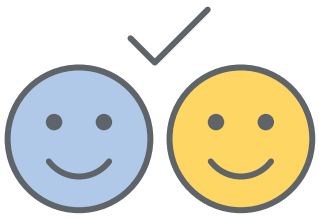
Instructions

2. **Model the Activity (5–7 minutes):**
   - Pick one card. Read it aloud clearly. "Let's read this card: 'Ask a grown-up before sharing my name online.'"
   - "Is this a smart and kind choice? Does it help keep us safe or help others?"
   - Guide them to say "Yes!"
   - "So, where does it go? On the 'Good Digital Citizen' side!" Place the card there.
   - Pick another card (a "Not Good" example). Read it aloud. "What about this one: 'Tell a stranger my favorite color and my school name online'?"
   - "Is this a smart and kind choice? Does it keep us safe?"
   - Guide them to say "No!"
   - "Why not? (It tells too much about you!) So, where does it go?" Place it on the "Not a Good Digital Citizen" side.
3. **Small Group or Whole Class Sorting:**
   - **Option 1 (Small Groups):** Give each group a set of cards and two sorting mats. Have them work together to read, discuss, and sort the cards. Circulate to listen and offer help.
   - **Option 2 (Whole Class):** Hold up one card at a time. Read it aloud. Have students use a thumbs-up/thumbs-down signal, or have a volunteer come place the card on the correct mat. Discuss each choice as a class.
4. **Wrap-Up Discussion (5–10 minutes):**
   - Review the sorted cards as a class.
   - For each card on the "Good Digital Citizen" side, ask: "Which part of being a **digital citizen** does this show? (Privacy, Responsible Behavior, Figuring Out What's Real Online, or Using AI in a Good Way)."
   - For cards on the "Not a Good Digital Citizen" side, ask: "What could we do instead to be a good **digital citizen**?"
   - Reinforce that even good digital citizens sometimes make mistakes, but the important thing is to learn and try to make smart and kind choices next time!

Additional Activity Idea (tailored to grades 2-3)

Digital Citizen Choice Cards

Example index card for reference:

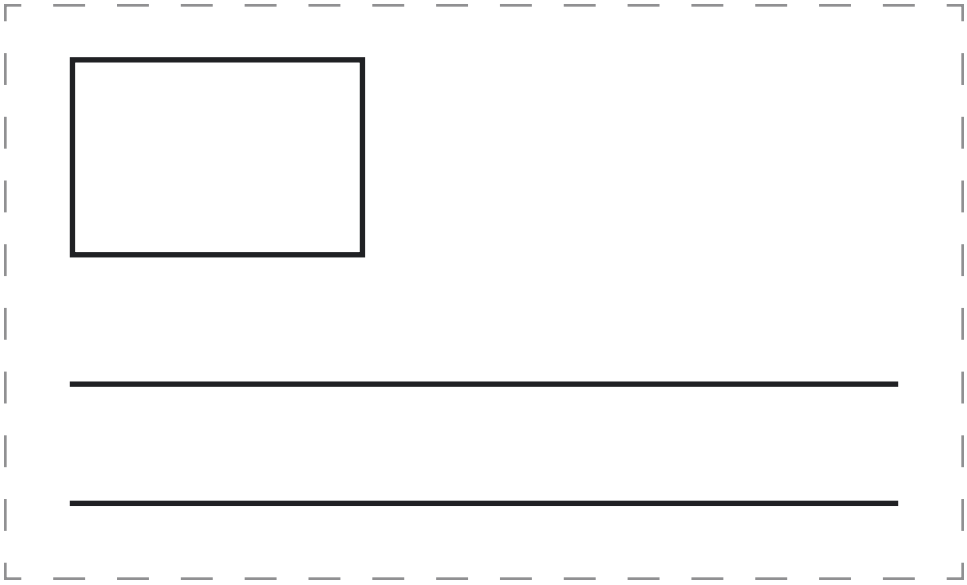


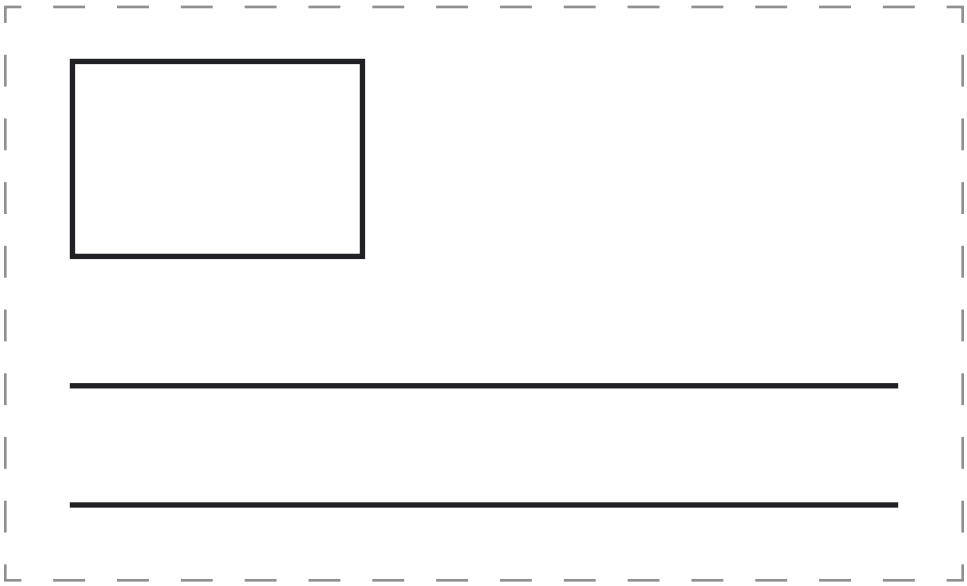
Tell a friend that I saw a funny video of them, but I didn't share it without asking

Additional Activity Idea (tailored to grades 2-3)

Digital Citizen Choice Cards

Below is a printable template you can use for the choice cards:





Lesson 3

Responsible AI Use

Lesson 3

Responsible AI Use

Students learn what clues AI needs and what it gives back, the importance of questioning information created by AI, and how to identify biases that can appear in AI output.

About this lesson

This is the last of three lessons that will help you build your AI brain power! This lesson helps us understand how AI works, how it learns, and why we need to be smart and careful about what AI shows us or tells us. By the end, you'll know how to think carefully about AI's answers and creations!

This lesson should take about 45 minutes, including time for the activity. Allow for variations in time to account for different literacy levels, number of examples shared, and activity length.

Goals for students

- ✓ **Define** AI input and output.
- ✓ **Explain** why it's important to think carefully about what AI shows or tells you.
- ✓ **Describe** that AI models, like humans, have biases.
- ✓ **Discuss** the implications of bias and misinformation.
- ✓ **Evaluate** scenarios using their understanding of how AI works and how to use it responsibly and safely.

Let's talk

How AI learns to speak and create

Let's talk about learning! How do you learn new things? Think about when you learned to read, or how you learned to tie your shoes, or even how you learned a new game.

Possible answers to listen for:

- *Listening in class*
- *Looking at examples*
- *Practicing solving problems*
- *Reading new books*
- *Seeing lots of examples*

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Responsible AI Use

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Let's talk

That's great! You learn by listening to your teacher, reading books, seeing lots of examples, and practicing, right? Well, computer tools, or AI, learn in a similar way, but very fast and with tons of information!

People who build AI give it a huge amount of data (the ingredients or little bits of information that AI uses to learn). This data can be:

- Lots of words from books and stories.
- Millions of pictures and drawings.
- Hours of sounds and music.

Just like you take in new information to learn, AI takes in input! When you prompt AI by asking a question or telling it to make something, that's your **input**. And what AI gives you back—like a story, a picture, or an answer—that's the **output**.

As you learned in Lesson 1, an output is the prediction that AI creates. It notices how pieces of data (like certain words or types of pictures) usually go together, then predicts what comes next. When it's making these predictions, it can sometimes have a favorite way of thinking. Let's learn more about that now.

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Responsible AI Use

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Let's talk

When AI has a "favorite" way of thinking (bias)

Imagine you love strawberry ice cream more than any other flavor. That's your bias—it's your strong preference or "favorite" way of thinking! We all have biases, and that's normal.

Now, think about the huge amount of information (pictures, words, sounds) that AI pulls from. This information comes from people all over the world. Just like people, this information can have biases, or could be misleading.

If AI learns mostly from information that shows a "favorite" way of thinking, then AI might also show that bias in its output. For example, if it only learns from pictures of one type of dog (i.e. a golden retriever), it might think all dogs look like that! But not all dogs have golden hair, are medium size, or have a long tail like golden retrievers do.

When AI shows bias, it means it's not being completely fair to everyone or everything. It might create a **stereotype**—a simple and often unfair idea about a whole group of people or things.

- If AI only learns from pictures where certain tasks are done by only one type of person, it might show a bias by suggesting only those people for those tasks.
- Or, if AI only sees pictures of red apples, it might start to think that all apples are red and forget about green or yellow ones!
- Another example: If AI only sees pictures of boys playing with toy cars and girls playing with dolls, it might suggest only cars to boys and only dolls to girls, even though all kids can like all toys!

We want AI to be fair and include everyone!

Lesson 3

Responsible AI Use

Students learn what clues AI needs and what it gives back, the importance of questioning information created by AI, and how to identify biases that can appear in AI output.

Let's talk

When AI makes mistakes

Even when learning from lots of data, AI can sometimes make mistakes or might not have all the information it could have. It's like even when a person knows a lot about a topic they can still make a mistake when answering a question.

Because AI learns from things humans made, and humans can make mistakes, AI can also get things wrong. It might:

- Give you information that isn't quite true.
- Make a picture that looks strange or doesn't make sense.
- Misunderstand your input and give a silly or incorrect output.
- Make up statements that aren't true.

This means when AI gives you an output, it's very important to think carefully about it. Always ask yourself:

- "How do I know this is true?"
- "How can I check if this is accurate?"

We call this **fact-checking**—looking to see if something is true or made up. You can always ask a parent, teacher, or another trusted grown-up to help you fact-check!

Remember, understanding how AI learns and why it might have a bias or make mistakes helps you be responsible when you use it!

Lesson 3

Responsible AI Use

Students learn what clues AI needs and what it gives back, the importance of questioning information created by AI, and how to identify biases that can appear in AI output.

Activity guidance

Now let's practice what we've learned about how AI works and why it's important to fact-check. We're going to try out being AI detectives together!

Read the following aloud to your students to do the first scenario from the activity together.

Today, we're going to play a game where our brains pretend to be an 'AI brain'! We'll look at some clues, just like AI looks at input (information). Then, we'll make a prediction about someone, just like AI makes an output (a guess or prediction). We'll also think very carefully about whether our predictions are fair to everyone. Pull out your activity handouts.

Let's look at Scenario 1 together. First, we'll read AI's Input—The AI is trying to find out what it should recommend next to someone who spends time online. Here is the info AI has collected:

Read AI's Input (Clues) aloud clearly and guide predictions.

AI's Input (Clues):

- Watches lots of videos about building with LEGOs.
- Searches for "newest superhero movies."
- Likes posts from a comic book store.
- Plays a space exploration game every day.

Now, let's make our first output—our predictions! Based on these clues, what types of interests does this person have? What is your 'AI brain' predicting?

Listen for student responses and consider writing them on the board.

Vocabulary

Bias	A strong preference or “favorite” way of thinking.
Input	When you ask AI a question or tell it to make something.
Output	What AI gives you back (like a story, a picture, or an answer).
Stereotype	A simple and often unfair idea about people or things.
Fact-checking	Looking to see if something is true or made up.

Key takeaway

Share this key takeaway with your class after concluding the following activity.

In this lesson, you learned that even though AI can be helpful, it can sometimes have a “favorite” way of thinking (a bias) or even make mistakes. This happens because AI learns from all the information it’s given (the input) and makes a prediction (the output). That’s why it’s important to always fact-check what AI tells you or shows you, and to ask for help if you’re not sure. Knowing this helps you be a responsible digital citizen when you use AI!

Activity

Being an AI Detective!

Goal for students

To identify examples of when AI makes predictions about people based on the information it learns (input), and explain why those predictions (output) might sometimes show bias or be mistakes.

Materials needed

- **Handout:** "Being an AI Detective!" (one handout per student)
- **Answer key:** N/A. Since this activity is designed for students to practice critical thinking and see how AI makes predictions (which aren't always perfect), there isn't a single "right" answer key. Instead, this guide provides expected responses and key discussion points for teachers to facilitate learning.

Instructions

Today, you get to pretend to be an AI detective! Remember how AI learns from huge amounts of data, or information (its input) to make predictions about what people might like? Well, on your worksheet, you'll be given a few clues about different pretend students—that's your input.

Your task, as an AI detective, is to look at these clues and make a prediction about what types of interests this person has, and what kinds of things they might like. Your predictions are AI's output!

Remember, real AI uses millions of clues and patterns, but we're just starting with a few. So, see if you think it's easy or hard to be an AI detective with just a little bit of information!

Give students about 10–15 minutes to fill out their worksheets for the first three mystery students and then for themselves. Encourage them to be creative but also to think about how they are making their predictions based only on the provided data.

Activity

Being an AI Detective!

Class discussion

After students have completed their worksheets, lead a class discussion using the questions below.

Questions for discussion:

"Did everyone in the class make the same predictions (outputs) for each scenario? Why do you think that happened?"

- Sample Answer: "No, we didn't all think the same! Maybe some people saw different clues (input), or they thought about the clues in a different way. This shows that even with the same input, an 'AI brain' (or our brains!) can sometimes work differently."

Understanding bias and mistakes

"When you made your predictions, did any of them feel like a stereotype? How did only having a few clues (input) make it harder to be completely fair with our guesses?"

- Sample Answer: "Yes, maybe for the person who likes to draw, I thought they would only like quiet things. That might be a stereotype because people who draw can like lots of different things! Having only a few clues (input) meant we didn't know the whole story, so our predictions (outputs) weren't always fair."

AI and being a responsible digital citizen

"When we looked at the clues (input) and made a prediction, were we trying to check if our prediction was really true? Why is it important to always check what AI tells us or shows us? Remember, AI makes guesses, it doesn't always know facts."

- Sample Answer: "Yes, we tried to think if our prediction made sense. It's important to always fact check what AI tells us because it's just predicting based on its input. It might be wrong, or it might have a bias, so we should always try to fact-check the information ourselves."

Activity

Being an AI Detective!

Directions

Pretend you are an AI detective! Read the clues (Input) about each pretend student. Then, make a prediction (Output) about them.

Scenario 1

AI's Input (Clues):

- Watches lots of videos about building with LEGOs.
- Searches for "newest superhero movies."
- Likes posts from a comic book store.
- Plays a space exploration game every day.

AI's Output (Your Predictions):

1. What types of interests does this person have? (e.g., likes fantasy, loves to build)

2. Based on these clues, what other things might AI predict this person would like to do?

3. Could your prediction have a bias or be a stereotype? Why or why not?

Activity

Being an AI Detective!

Scenario 2

AI's Input (Clues):

- Posts pictures of delicious-looking baked goods.
- Searches for "easy recipes for dinner."
- Likes videos about cooking shows.
- Often buys baking ingredients online.

AI's Output (Your Predictions):

1. What types of interests does this person have?
   (e.g., loves cooking, likes trying new food, a home baker)

2. Based on these clues, what other things might AI predict this person would like to do?

3. Could your prediction have a bias or be a stereotype? Why or why not?

Activity

Being an AI Detective!

Scenario 3

AI's Input (Clues):

- Watches lots of videos about different kinds of wild animals.
- Searches for "best places to hike in national parks."
- Follows social media accounts that share beautiful nature photos.
- Reads online articles about how to protect endangered animals.

AI's Output (Your Predictions):

1. What types of interests does this person have?
   (e.g., loves animals, enjoys nature, likes exploring)

2. Based on these clues, what other things might AI predict this person would like to do?

3. Could your prediction have a bias or be a stereotype? Why or why not?

Activity

Being an AI Detective!

Scenario 4

AI's Input (Clues):

- Listens to pop music playlists every day.
- Watches videos on how to do popular dance moves.
- Likes posts from famous singers and dancers.
- Shares short videos of themselves singing along to songs.

AI's Output (Your Predictions):

1. What types of interests does this person have?
   (e.g., makes up their own dances, goes to concerts)

2. Based on these clues, what other things might AI predict this person would like to do?

3. Could your prediction have a bias or be a stereotype? Why or why not?

Activity

Being an AI Detective!

Scenario 5

Now, think about yourself! What are four clues (data points) AI might learn about you from your online activities?

AI's Input (Clues about YOU):

1.

2.

3.

4.

AI's Output (What AI might predict about YOU):

1. What kind of interests might AI predict you have?

2. Based on these clues, what other things might AI predict you would like to do?

3. Do you think AI's predictions about you would always be completely accurate and fair, or could they have a bias or be a mistake? Why?

Google

Be Internet Awesome.