



K-5 AI Literacy — 5-Day Lesson Plan

GRADE LEVEL

K-5

SUBJECT

AI Literacy

WEEK OF

Unit Overview

A five-day intro to how AI actually works — without calling it magic. Students sort AI from non-AI in their daily lives, watch a real model 'learn' in front of them with Google Quick, Draw!, build their own tiny training set, and end the week able to answer 'What is AI?' in their own words and name one thing AI is great at and one thing it gets wrong.

Standards Alignment

ISTE Student Standards 1.3 Knowledge Constructor; AI4K12 Five Big Ideas (Perception, Representation)

Global Standards Mapping

United States:

ISTE Student Standards 1.3 Knowledge Constructor; AI4K12 Five Big Ideas (Perception, Representation)

United Kingdom:

Key Stage 1–2 (Years 1–6)

Australia / NZ:

Foundation–Year 6 (AC v9.0)

IB Programme:

PYP (cross-phase, ages 3–11)

Canada (Ontario):

Ontario Primary–Junior (K–Grade 6)

Singapore / India:

MOE Primary 1–6 · NCERT Classes 1–5

EU/EEA note: EU/EEA: GDPR-compliant — no student PII collected; teacher use only

Companion Student Handout — ready to photocopy

Each lesson plan ships with a separate "Student Edition" PDF — daily I-can goals, vocabulary blanks, work space, and exit-ticket boxes. No teacher prep. Print and hand out.

Day 1

K-5 AI Literacy — 5-Day Lesson Plan

Learning Objective

Students will be able to identify three things in daily life that use AI and three that look smart but aren't, with one reason for each.

Standards Alignment

ISTE 1.3.a; AI4K12 Big Idea 1 (Perception)

Materials Needed

- 8 sort cards per pair (Alexa, calculator, ChatGPT, toaster, Siri, thermostat, TV remote, Google Translate)
- Anchor chart paper
- Sticky notes
- Projector for short video

Lesson Flow

Opening / Hook (5-10 min):

Show two cat photos side-by-side — one real, one AI-generated. Ask: "Which one is real? How can you tell?" 60-second pair share.

Direct Instruction (15-20 min):

Mini-lesson: AI is a computer that learns by looking at thousands of examples — like how you learned what a dog is by seeing many dogs. It doesn't 'know' anything; it predicts. Add to anchor chart: AI = pattern + prediction.

Guided Practice (10-15 min):

Pairs sort 8 cards into AI / Not AI / Tricky. Walk room — push pairs on the calculator card ("Why isn't a calculator AI?") and the thermostat card ("What if it learns when you're home?").

Independent Practice (10-15 min):

On a sticky note, students draw one thing in their home that uses AI and label it. Stick on chart.

Closing / Exit Ticket (5 min):

Exit ticket: "AI is a computer that ____." Look for the word 'learns' or 'patterns'.

Differentiation

For struggling learners:

Provide a partially-completed organizer with the first row modeled and 2-3 sentence stems specific to AI.

For advanced learners:

Add a transfer prompt: apply today's idea to a context outside AI and defend the move in 3 sentences.

For ELL students:

Pre-teach 4 key terms with a visual glossary; offer the sentence frame "I notice that ____, which suggests ____ because ____."

For IEP students:

Reduce the response set by half; offer choice between a written, oral (recorded on Flip), or sketch response — same rubric.

Day 2

K-5 AI Literacy — 5-Day Lesson Plan

Learning Objective

Students will be able to explain in their own words how an image-classifier 'learns' from examples, using Quick, Draw! as a live demo.

Standards Alignment

ISTE 1.3.b; AI4K12 Big Idea 2 (Representation & Reasoning)

Materials Needed

- Projector + Google Quick, Draw!
- Drawing paper
- Markers
- 5x5 grids printed on paper

Lesson Flow

Opening / Hook (5-10 min):

Display Google Quick, Draw! — call on a student to draw a 'shoe' in 20 seconds. Watch the model guess in real-time.

Direct Instruction (15-20 min):

Think-aloud: "It guessed shoe — but it's never seen MY shoe. So how?" Reveal Quick, Draw!'s training-data viewer; show 50 student drawings of 'shoe'. The AI learned from ALL of them.

Guided Practice (10-15 min):

Whole class plays 6 rounds. After each, ask: "Why did it get this one but miss that one?" Surface: it gets common drawings; it misses unusual or detailed ones.

Independent Practice (10-15 min):

Each student draws 5 examples of 'cat' on a 5x5 grid — silly, realistic, just-the-face. Pair-trade: can your partner spot which is which?

Closing / Exit Ticket (5 min):

Sentence: "To teach an AI to spot a cat, you would need to show it ___ examples and they should be ___."

Differentiation

For struggling learners:

Provide a partially-completed organizer with the first row modeled and 2-3 sentence stems specific to AI.

For advanced learners:

Add a transfer prompt: apply today's idea to a context outside AI and defend the move in 3 sentences.

For ELL students:

Pre-teach 4 key terms with a visual glossary; offer the sentence frame "I notice that ____, which suggests ____ because ____."

For IEP students:

Reduce the response set by half; offer choice between a written, oral (recorded on Flip), or sketch response — same rubric.

Homework (optional)

Spot one AI at home tonight. Be ready to share.

Day 3

K-5 AI Literacy — 5-Day Lesson Plan

Learning Objective

Students will be able to describe one mistake AI makes and explain why, using a real misclassification example.

Standards Alignment

AI4K12 Big Idea 3 (Learning); ISTE 1.2.b

Materials Needed

- Printed AI misclassification examples (chihuahua/blueberry-muffin set; husky/wolf snow-bias set)
- Anchor chart from Day 1
- Notebooks

Lesson Flow

Opening / Hook (5-10 min):

Project the chihuahua-vs-blueberry-muffin grid. "AI mixes these up. Why might that happen?" 90-second whole-class.

Direct Instruction (15-20 min):

Concept: AI sees pixels and patterns, not meaning. If 90% of training huskies were on snow, it might learn 'snow = husky' instead of 'fur = husky'. Show the husky/wolf example.

Guided Practice (10-15 min):

Pairs match 6 misclassifications to 6 'why' cards (e.g., 'too few examples', 'looked too similar', 'training data was biased'). Defend their best one to another pair.

Independent Practice (10-15 min):

Notebook: "If I were going to teach an AI to recognize MY pet, I'd have to be careful about ___ because ___."

Closing / Exit Ticket (5 min):

Add to chart under 'AI is great at...' and 'AI gets confused when...' — collect 4 student-generated entries each.

Differentiation

For struggling learners:

Provide a partially-completed organizer with the first row modeled and 2-3 sentence stems specific to AI.

For advanced learners:

Add a transfer prompt: apply today's idea to a context outside AI and defend the move in 3 sentences.

For ELL students:

Pre-teach 4 key terms with a visual glossary; offer the sentence frame "I notice that ____, which suggests ____ because ___."

For IEP students:

Reduce the response set by half; offer choice between a written, oral (recorded on Flip), or sketch response — same rubric.

Day 4

K-5 AI Literacy — 5-Day Lesson Plan

Learning Objective

Students will be able to build a tiny rule-based 'AI' on paper that classifies fruit, then identify two limits of their rule.

Standards Alignment

AI4K12 Big Idea 2; CSTA 1A-AP-08 (decompose problems)

Materials Needed

- Fruit photo set (12 cards: apples red/green, bananas, lemons, oranges, mystery fruit)
- Decision-tree templates

Lesson Flow

Opening / Hook (5-10 min):

"You are an AI. Your job: separate apples from not-apples. Go!" 2-minute paired sort.

Direct Instruction (15-20 min):

Show a simple decision tree: Is it round? ! Is it red? ! Apple. Walk through 3 c a 'classifier' is — a stack of yes/no questions.

Guided Practice (10-15 min):

Triads build their own tree on the template to sort all 12 cards. Walk room — when a tree breaks on the green apple, that's the teaching moment: "What new question do we need?"

Independent Practice (10-15 min):

Each student writes: 'My tree fails on ___ because it doesn't ask ___.'

Closing / Exit Ticket (5 min):

Trade tables — try to break a neighbor table's tree with a tricky example. Discuss: real AI faces this too.

Differentiation

For struggling learners:

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For advanced learners:

Add a transfer prompt: apply today's idea to a context outside AI and defend the move in 3 sentences.

For ELL students:

Pre-teach 4 key terms with a visual glossary; offer the sentence frame "I notice that ____, which suggests ____ because ____."

For IEP students:

Reduce the response set by half; offer choice between a written, oral (recorded on Flip), or sketch response — same rubric.

Day 5

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Learning Objective

Students will be able to answer 'What is AI?' in 4-5 sentences and identify one good and one risky use of AI in their own life.

Standards Alignment

ISTE 1.3.d; AI4K12 Big Idea 5 (Societal Impact)

Materials Needed

- Week's anchor chart
- AI Reflection one-pager
- Class word wall

Lesson Flow

Opening / Hook (5-10 min):

Whip-around: each student says one word that comes to mind when they hear 'AI'. Capture on board.

Direct Instruction (15-20 min):

Co-construct: gather Day 1-4 learning into a single 'What is AI?' anchor. Use student wording. Then introduce the 'good use / risky use' frame.

Guided Practice (10-15 min):

Carousel of 4 stations: AI helping a doctor read an X-ray, AI choosing what video plays next, AI grading homework, AI writing a kid's story. Pairs add a sticky note: 'good because...' or 'risky because...' at each.

Independent Practice (10-15 min):

Reflection one-pager: 'AI is...', 'AI is great at...', 'AI gets confused when...', 'One smart way I'd use AI is...', 'One thing I'd be careful about is...'.

Closing / Exit Ticket (5 min):

Pair-share the one-pager. Three volunteers share their 'careful about' to the class.

Differentiation

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For advanced learners:

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For ELL students:

Pre-teach 4 key terms with a visual glossary; offer the sentence frame "I notice that ____, which suggests ____ because ____."

For IEP students:

Reduce the response set by half; offer choice between a written, oral (recorded on Flip), or sketch response — same rubric.



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