

AI Literacy for Ages 4-7

Understanding artificial intelligence together through stories, games, movement and creative exploration

ESRA OBUT

Language • Culture • Artificial Intelligence & Human Collaboration



We do not need to start with a screen when introducing artificial intelligence.

The first things a child aged four to seven needs to learn about artificial intelligence are not technical terms. A more valuable beginning is learning to notice patterns, make predictions, compare possibilities, spot mistakes and experience that the final decision can remain their own.

● THIS GUIDE'S APPROACH

We do not present artificial intelligence as a magical mind. We approach it as a system that uses patterns, makes predictions and sometimes makes mistakes. The child's role is to ask questions, check, create and decide.

How should you use this guide?

1

Choose a game

You do not need to follow the order; follow the child's interest.

2

Ask for a prediction first

Before giving the answer, listen to what the child thinks and why.

3

Check together

Turn "How can we tell?" into an everyday habit.

4

Normalise mistakes

A mistake is not the end of the game; it is a clue that invites another look.

5

Leave the decision to the child

An adult or AI can offer options; the final choice belongs to the child.

● ENDING THE GAME

Ask the child to complete these three sentences in their own words: "At first, I thought ..." "When I saw the new clue, I noticed ..." "Next time, I will ask ..." This helps them notice not only the answer but also how they arrived at it.

These activities develop more than AI literacy.

Games that involve predicting, following sequences, changing rules, noticing mistakes and explaining reasons also create opportunities to exercise the executive functions developing in early childhood.

Working memory

Holding a sequence, rule or clue in mind and using it.

Cognitive flexibility

Changing an idea or the rules of a game when new information appears.

Attention and self-control

Focusing on details, waiting and looking again.

Language and reasoning

Explaining a prediction, giving reasons and making comparisons.

Metacognition

Noticing what they thought and why their thinking changed.

Joint attention and connection

Looking at the same thing with an adult and seeking a solution together.

These skills cannot be measured through a single activity. They grow over time through play, repetition and live interaction with an adult.

The Unfinished Story

When predicting how a story will continue, we use clues and consider more than one possibility.

AGES 4-7

10-15 MINUTES

DEVELOPMENTAL GOAL

Making predictions, giving reasons and remaining open to another possibility.

MATERIALS

A picture book or short story; three blank cards.

THE ADULT'S ROLE

The aim is not to teach the answer but to make the child's prediction, reasoning and choice visible.

HOW TO PLAY

- 1 Pause the story at an intriguing point: "There was a sound behind the door ..."
- 2 Ask the child to imagine two or three different continuations. Draw each one on a card, or let the adult write it down.
- 3 Place the cards side by side. Discuss which is more likely and which is more surprising.
- 4 Finish the story. If the prediction was not correct, find together which clue led to a different outcome.

QUESTIONS YOU CAN ASK THE CHILD

What clue made you think that? • What else could happen? • What information would help us make a better prediction?

WHAT YOU MAY OBSERVE

Does the child only state an outcome, or can they support it with a clue?

OPTIONAL VARIATION

For ages 5-6, offer two options. For ages 6-7, the adult can add a weak prediction and ask the child to explain why it is weak.

Body Pattern

We use our bodies to discover the order in repeated movements and predict the next movement from that pattern.

AGES 4-7

10-15 MINUTES

● DEVELOPMENTAL GOAL

Noticing sequence, repetition, prediction and changes in a pattern.

● MATERIALS

A small space for movement; optional rhythm music.

● THE ADULT'S ROLE

The aim is not to teach the answer but to make the child's prediction, reasoning and choice visible.

HOW TO PLAY

- 1 Begin a simple pattern: clap-tap knees-clap-tap knees.
- 2 Stop and ask, "What comes next?"
- 3 Let the child create a new movement pattern and the adult predict what comes next.
- 4 Deliberately change one movement. When the child spots the change, ask them to explain the rule of the pattern.

● QUESTIONS YOU CAN ASK THE CHILD

What did you look at to make your prediction? • What happens if we change the rule? • Where did the change begin?

● WHAT YOU MAY OBSERVE

Is the child simply repeating, or can they explain the rule through movements or words?

OPTIONAL VARIATION

For ages 6-7, perform the same two movements once slowly and once quickly: slow clap-fast knee tap. Ask the child to repeat both the movement and its speed in the correct order.

Make the Rule: Sorting Cards

Cut along the dotted lines. Ask the child to sort the cards into two or three groups using a rule of their own, then explain the rule. Sort the same cards again using a different rule.

AGES 5-7

SCREEN-FREE

CUT • MIX • GROUP • EXPLAIN YOUR RULE



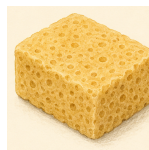
LEAF

natural • light



STONE

natural • hard



SPONGE

human-made • soft



KEY

human-made • hard



FEATHER

natural • soft



SPOON

human-made • hard



PINE CONE

natural • rough



BUTTON

human-made • small

● QUESTIONS YOU CAN ASK THE CHILD

Why did you put these cards together? • Can you make another rule? • Could one card belong in two groups?

● THE ADULT'S ROLE

Rather than steering the child towards the “right group”, listen for whether their rule is consistent and whether they can explain it.

The features beneath the cards are prompts for the adult; you may cover them before cutting out the cards.

Did I See It or Predict It?

Choose a picture, a book page or an everyday scene. Separate the details you can actually see from the predictions you make based on those details.

PASTE A PICTURE HERE, MAKE A SMALL DRAWING OR WRITE THE NAME OF THE SCENE YOU ARE LOOKING AT

WHAT I SAW

Details I could see for certain

WHAT I PREDICTED

What I thought based on those details

● DISCUSS TOGETHER

Can we really see this, or are we making a prediction? • Which detail supports our prediction? • What extra information would help us be sure?

The aim is not to stop predicting but to notice the difference between the information we see and the meaning we give it.

Predict, Create, Compare

The screen is not the centre of the activity; it is a small part that you discuss together. The child does not use the tool alone.

AGES 6-7 • WITH AN ADULT

10-15 MINUTES

DEVELOPMENTAL GOAL

Comparing an AI output with the intention and details; making the final decision.

MATERIALS

An age-appropriate generative tool used through the adult's account; the child's drawing; no more than 10 minutes of screen time.

THE ADULT'S ROLE

The aim is not to teach the answer but to make the child's prediction, reasoning and choice visible.

HOW TO PLAY

- 1 Ask the child to draw an imaginary creature and describe three of its features. Do not use personal data, a face photo or a voice recording.
- 2 The adult enters the child's description into the tool. First ask the child to predict what it will create.
- 3 Compare the output with the drawing: What did it capture, miss or add?
- 4 Let the child decide whether to accept or change the output, or continue with their own drawing.

QUESTIONS YOU CAN ASK THE CHILD

Which part of the description did the system miss? • What did it add that you did not want? • Why did you make that final decision?

WHAT YOU MAY OBSERVE

Does the child automatically see the output as better because it looks more polished, or can they stand by their own intention?

OPTIONAL VARIATION

Without using a digital tool, let the adult play the "system" and deliberately draw one detail in the description incorrectly.

Four boundaries for digital experiences

1

Use it together

Do not leave a child aged 4-7 alone with a generative AI tool.

2

Do not share personal data

Do not share names, school, location, face photos, voice recordings or private family information.

3

Keep it brief

The screen should not be the whole activity, only a small part to compare and discuss.

4

Do not humanise it

Instead of saying “it knows, wants or understands”, say “it looks at patterns and makes a prediction”.

● CAUTION

A tool's presence in an app store or on a platform does not mean it is suitable for this age group. An adult should check the terms of service, age limit, data use and content safety.

8 thinking habits we want to help children develop

1

I predict first.

2

I explain the clue that led me to this prediction.

3

I can change my mind when I receive new information.

4

A confident answer can still be wrong.

5

I ask, "How do we know?"

6

More than one answer may be possible.

7

I check and change what AI creates.

8

I make the final decision.

Our aim is to teach children to ask good questions, rather than memorise the correct answer.

Resources and a short note for adults

This guide offers a starting point for developing essential AI literacy habits such as curiosity, prediction, noticing mistakes, comparison and human oversight. The activities are not intended for diagnosis or developmental assessment.

- **UNICEF Innocenti (2025)**

Guidance on AI and Children 3.0 — child safety, privacy, transparency and the best interests of the child.

- **UNESCO (2023)**

Guidance for Generative AI in Education and Research — age appropriateness, data privacy and human-centred use.

- **UNESCO (2024)**

AI Competency Framework for Students — a human-centred approach, ethics and technical understanding.

- **Center on the Developing Child, Harvard University (2014; 2022)**

Guides to supporting executive functions through play and adult-child interaction.

- **UNICEF (2021)**

Policy Guidance on AI for Children 2.0 — principles for AI centred on children's rights.

The most important thing for an adult to know

You do not need to know the answer to every question. Saying, “I'm not sure either; how can we check together?” models the very way of thinking this guide aims to teach.

**Let the child be more than
a user of artificial intelligence;
let them question, evaluate,
create and make the decisions.**

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