Understanding AI

A guide for parents

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Four kinds of AI children encounter

Children meet AI in four main ways outside school. The first two are the ones most parents picture: chatbots and assistants they ask things of (ChatGPT, Snapchat My AI, Gemini, voice assistants), and image, video and creative tools they use to make things (image generators, creative filters, AI drawing and writing tools).

The other two are easier to miss. Recommender feeds (TikTok, YouTube, Instagram and similar) decide what your child sees by learning from what they watch and skip. AI is also built into many of the games children already play, including Roblox and Minecraft, where it shapes gameplay and generates characters.

Most of the time your child spends with AI is probably the third. The fourth is growing fast. This guide focuses on AI for learning, but the principle of staying curious and talking openly applies across all four.

About this guide

This guide focuses on AI and learning: what AI can and cannot do, how it affects children's thinking and development, and how parents can support their child to use it wisely for schoolwork.

A separate document - AI and Children's Wellbeing - covers the important issue of children using AI for emotional support and companionship. Both are available from your school.

A plain English one-page summary of this guide is also available. If you read nothing else here, please read the checklist in the final pages.

Important: AI and children under 13

General-purpose generative AI tools are not designed for children under 13. Most require users to be at least 13 years old under their terms of service.

AI is also now embedded in many popular apps and social media platforms that children use routinely - not just as standalone tools. Children may be interacting with AI without realising it.

13 is a minimum threshold, not a guarantee of readiness. Teenagers of all ages benefit from ongoing guidance, particularly as AI literacy is not yet consistently taught in schools.

Some schools use purpose-built educational AI platforms with additional safeguards. If you are unsure what your child's school uses or permits, ask directly.

What generative AI really is

Generative AI is an umbrella term for a family of tools that create new content in response to a request. The most common types your child is likely to encounter are:

- Text and chat tools (such as ChatGPT, Gemini, and Copilot) - these generate written responses, explanations, and answers based on patterns in large quantities of text they have been trained on.
- Image generation tools (such as DALL-E, Midjourney, and Adobe Firefly) - these produce images from written descriptions, drawing on patterns in millions of images.
- Video and audio generation tools - newer and less commonly used in schools at present, but becoming more accessible.
- AI embedded in apps and platforms - AI features are now built into many tools children use routinely, including social media, search engines, and productivity apps, often without being clearly labelled.

Each type works differently and carries different considerations. This guide focuses primarily on text-based tools, but the principles of critical thinking, verification, and appropriate use apply across all of them.

The AI you might not notice

Most parents picture AI as a chatbot the child opens deliberately. That is one part of it, but it is not the part children spend most time on.

The AI behind a feed is doing a different job from the AI behind a chatbot. A chatbot is generative AI: it makes new content in response to a question. A feed is a recommender system: it does not create anything new, it chooses what to show your child next from content that already exists, based on what predicts they will keep watching. Both are AI. The risks they create are different.

The feeds on TikTok, YouTube, Instagram and similar platforms are AI systems too. They use what your child watches, likes, skips and lingers on to decide what to show next, and they do this continuously in the background. This shapes what your child sees, what they treat as normal, how long they spend on the app, and often how they feel afterwards. The design intent is to keep them engaged for as long as possible.

AI is also built into many of the games children already play. Roblox, Minecraft and similar platforms use AI to shape gameplay, generate characters, and respond to what the child does. Your child may be interacting with AI for hours a day without ever opening a tool that calls itself one.

This guide focuses on AI for learning, but the habits of curiosity, verification, and open conversation apply to all of it.

How text-based AI tools work - and why it matters

Text-based AI tools do not think, understand, or know anything. They are pattern-matching systems trained on vast quantities of text. When you type a question, the system predicts, word by word, what a plausible response might look like based on those patterns. It has no direct access to reality and no lived experience.

These tools can produce responses that sound authoritative and fluent whilst being factually wrong. They cannot reliably tell you whether what they produce is accurate. Confidence in tone is not the same as accuracy in content.

General tools versus school-provided platforms

Not all AI tools are the same. General-purpose tools such as ChatGPT or Gemini are trained on broad internet content. They have no knowledge of your child's school, their curriculum, their teacher's preferred methods, or the specific requirements of their exam board.

Some schools are now using purpose-built educational AI platforms specifically designed for learning. These may be built around the national curriculum, aligned to particular exam specifications, or integrated with school systems in ways that make them considerably more reliable for academic use. They are also typically subject to data protection agreements that general tools are not.

If your child's school provides or recommends a specific AI platform, it is worth understanding what it is designed to do. The guidance in this document applies most directly to general-purpose tools used independently. Where a school has provided a curriculum-aligned platform, the specific risks around inaccurate curriculum content are likely to be lower - though the broader questions about independent thinking, verification, and appropriate use still apply.

Why this matters for your child's learning

When a child asks AI to explain something, draft something, or solve something for them, they risk bypassing the cognitive effort that builds genuine understanding. This is sometimes called cognitive offloading - and the concern is not just that AI might give a wrong answer, but that by doing the intellectual work for the child, it reduces the practice that builds lasting skill and capability. My own research and that of colleagues in this field points consistently to the same concern: the skills that matter most for young people's futures are precisely those that AI cannot replicate.[2]

Early research is beginning to document this. In one 2025 study, Bastani and colleagues found that students who used AI assistance showed lower learning retention than those who worked through problems independently, and performed worse when AI was subsequently removed. Further research across different settings is needed, but the direction of the finding is consistent with what we know about how learning works.[1]

This does not mean AI has no place in learning. Used thoughtfully, it can help a child explore an idea, check their understanding, or approach a problem from a different angle. The question worth asking is always: is my child thinking more as a result of using this, or thinking less?

Research by Kapur on productive struggle in learning suggests that the effort required to work something out independently is not an obstacle to learning but a central part of it.[3] Tools that remove that effort too readily can undermine the very outcomes we are trying to support.

Guidance by age group

Children at different ages have different needs, different vulnerabilities, and different capacities to use AI critically. The guidance below reflects those differences.

Early years and primary school (up to 11)

Children at this age are developing foundational literacy, numeracy, and thinking skills. These are best built through direct experience, conversation, play, and human interaction. Generative AI tools are not appropriate for independent use by children in this age group. Current government guidance also emphasises the importance of limiting screen time for younger children and prioritising activities that develop language, physical skills, and real-world social connection.

Supervised exploration with a parent or trusted adult can have value: looking at an AI response together, asking whether it is right, and discussing how you might check it are all habits worth starting early. The key distinction is always between a child using AI alone and a child using it alongside an adult who is actively guiding the conversation.

Lower secondary (Years 7 to 9, ages 11 to 14)

Children in this age group may encounter AI through school or independently. They are old enough to begin developing a critical understanding of what these tools are and are not, but they need active support to do so. At this stage, the priority is developing the habit of verification. Any AI output should be treated as a starting point, not an answer, and checked against textbooks, teacher explanations, or trusted sources.

Upper secondary and sixth form (Years 10 to 13, ages 14 to 18)

Older students are more likely to be using AI independently and more frequently. At this stage they are capable of more nuanced engagement, but also face greater academic risk if AI use crosses into malpractice. The guidance here is about developing self-awareness as a learner: understanding when AI is helping them think more clearly and when it is substituting for their own thinking. Students at this stage should understand their school's policy clearly, and should be able to articulate and defend everything they submit.

A note on children with additional needs and those learning in English as an additional language

For some children, AI can offer genuine benefits. Children with dyslexia, processing difficulties, or other learning differences may find that AI tools help them access written content, structure their thoughts, or check their work in ways that reduce unnecessary barriers. Similarly, children learning in English as an additional language may find AI useful for exploring vocabulary or approaching unfamiliar text.

In these cases, AI can be a form of appropriate scaffolding rather than a shortcut. If your child has an Education, Health and Care plan or receives additional support, it is worth speaking with their SENCO about how AI might be used appropriately.

Green, amber, and red: a guide to appropriate use

Not all uses of AI carry the same risk. The table below offers a practical guide to uses that tend to support learning, those that require care and parental conversation, and those that are likely to cause harm.

Rating	What this looks like
GREEN	**Is my child still doing the thinking?** Asking AI to explain a concept in simpler terms after already attempting to understand it Using AI to check spelling, grammar, or punctuation in work already written by the child Asking AI to generate practice questions on a topic, then attempting them independently Exploring "what if" questions to extend thinking beyond the lesson
AMBER	**Is this supporting effort or replacing it?** Using AI to get an initial explanation before attempting a task (check: does the child then work independently?) Asking AI to summarise a topic for revision (check: is this replacing reading and note-making, or supplementing it?) Using AI to suggest an essay structure (check: does the child then write the content themselves?)
RED	**Is this still the child's work?** Asking AI to write or substantially draft any homework, coursework, or assignment Copying AI-generated text without checking, editing, or understanding it Entering personal details, school information, or exam questions into AI tools Using AI to rewrite or restructure work for submission as the child's own

A worked example: the same task done two ways

To illustrate the difference between use that supports learning and use that undermines it, consider a Year 10 student asked to write a paragraph analysing a poem.

Approach A: supports learning

The student reads the poem, makes their own notes, and writes a first draft. They are unsure about the meaning of one stanza, so they ask AI: "Can you explain what this stanza might mean?" They read the explanation, decide whether they agree, and revise their own paragraph in their own words.

The thinking is theirs. The AI has helped them past a specific point of difficulty.

Approach B: undermines learning

The student opens AI and types: "Write me a paragraph analysing this poem for Year 10 English." They copy the response, change a few words, and submit it.

They have not engaged with the poem, have not developed their analytical skills, and have submitted work that is not their own.

This is also likely to constitute academic malpractice under their school's policy.

The risks worth knowing about

A note on school policies: AI rules differ between schools and examination boards. The guidance in this document reflects broad principles, but always check your child's school policy for what is specifically permitted or prohibited.

Inaccurate information

AI systems regularly produce incorrect facts, invented statistics, and fabricated references. This reflects a fundamental limitation of how these systems work, even as they continue to improve in other respects. Any AI output used for schoolwork should be verified against reliable sources.

Reduced independent thinking and de-skilling

Research suggests that students who rely heavily on AI for academic work show reduced ability to tackle problems independently when AI is not available.[1] The concern is not simply wrong answers; it is the gradual erosion of thinking skills that come from practice.

A widening gap between confident and less-confident learners

Children who already feel confident in a subject often use AI to push their thinking further, asking it to challenge their ideas or explore a difficult angle. Children who are struggling are more likely to use it to bypass the difficulty altogether. Without active conversation at home about how AI is being used, this can widen rather than close the gap between confident and less-confident learners. The same tool that extends one child's thinking can be the one that replaces another's.

Privacy

Children should not enter personal details into general-purpose AI tools, including their name, school, address, or anything that identifies them. Content from textbooks, exam papers, or school materials should not be uploaded to general tools either, as this information may be used to train future versions of the system.

School-provided platforms are typically subject to data protection agreements that general tools are not, and are generally safer in this respect.

Exam and assessment risk

School and examination board policies on AI use vary, and it is worth checking what your child's school permits. That said, using AI to write or substantially draft coursework, essays, or homework is widely regarded as academic malpractice. Teachers and examiners are increasingly able to identify AI-generated work. Where a child is unsure whether a particular use is acceptable, the right course is to ask their teacher before submitting, not after.

How you can support your child

The most effective thing any parent can do is talk openly about how AI works and how their child is using it. Evidence from digital parenting research suggests that open conversation is more effective than either blanket restriction or uncritical acceptance.´

Four habits worth building at home

- Ask "how do you know that is right?" whenever your child shares something from AI. This one question builds the habit of verification.
- Encourage productive struggle. When your child is stuck, try sitting with them in the difficulty for a while before suggesting AI. That effort is where learning happens.

- Use AI together occasionally, so your child sees you questioning and checking its outputs rather than accepting them.
- Keep the conversation going. Ask your child what AI is used for at school, what their teacher's policy is, and what they themselves think about it.

A simple checklist for families

Before your child submits any work that involved AI, ask these four questions:

1. What did you use AI for, exactly?
2. Have you checked that what it told you is accurate?
3. Is the thinking and the writing in this work yours?
4. Would you be able to explain this to your teacher if asked?

If the answer to questions 2, 3, or 4 is no, the work is not ready to submit.

References and further reading

1. Bastani, H., Bastani, O., Sungu, A., Ge, H., Kabakcı, Ö. and Mariman, R. (2025). Generative AI without guardrails can harm learning: Evidence from high school mathematics. Proceedings of the National Academy of Sciences, 122(26), e2422633122. https://doi.org/10.1073/pnas.2422633122

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3. Kapur, M. (2016). Examining Productive Failure, Productive Success, Unproductive Failure, and Unproductive Success in Learning. Educational Psychologist, 51(2), 289-299.

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About this guide

This guide is produced by the Collective Intelligence consortium, which brings together Educate Ventures Research, Big Education, The Good Futures Foundation and Cambridge University Press & Assessment. It is authored by Professor Rose Luckin: an internationally recognised expert on AI in education and Founder and CEO of Educate Ventures Research (EVR). She is Professor Emerita at University College London.

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