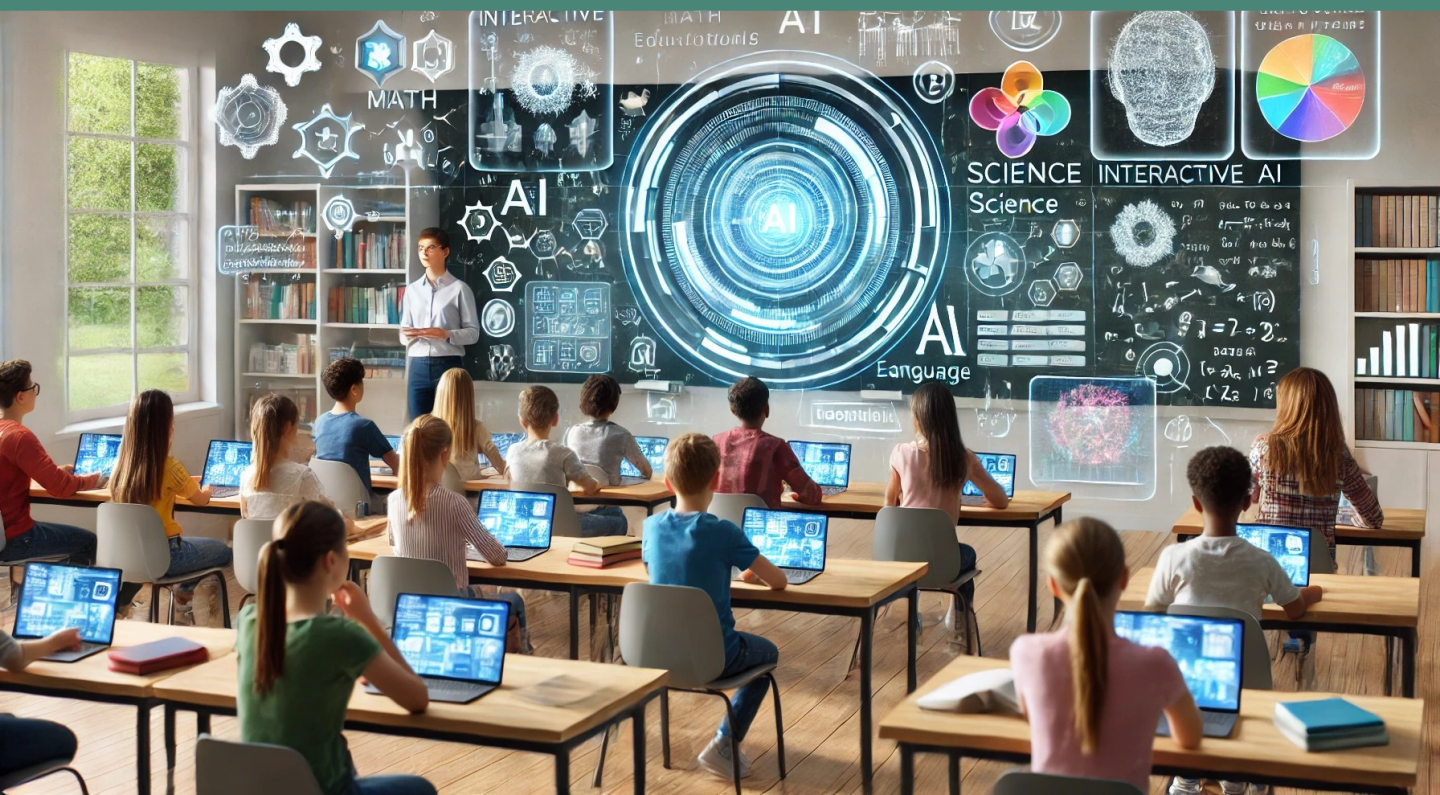
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Computing & Digital Innovation Centre
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Teaching about AI in Primary Schools

AI Research Project Report
- 2025/26 -



Teaching about AI in Primary Schools

AI Research Project Report 2025-2026

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Lead Author: Catherine Moore – September 2026

With contributions from the AI project leads from the following settings:

Arbourthorne Primary School, Carfield Primary School, Ecclesall Primary School, Greystones Primary School, Nook Lane Junior School, Oughtibridge Primary School, Owler Bar Primary School, Pye Bank CE Primary School

AI tools were used to generate the front cover image, to help in the drafting process for some sections of the report, and to identify any gaps. A human has thought about, checked and re-written pretty much everything before publishing.

Executive Summary

Artificial intelligence is becoming embedded within the everyday lives of children, through search engines, smart speakers, social media platforms and increasingly through generative AI tools such as chatbots and image generators. While the recent Curriculum and Assessment Review recommended that all pupils should learn how to use artificial intelligence effectively from 2028, there remains limited guidance on what AI literacy education should look like in primary schools and few resources to teach it.

The Teaching about AI in Primary Schools project was established by Learn Sheffield during the 2025-26 academic year to investigate how primary-aged pupils can be taught about artificial intelligence safely and effectively. Eight primary schools participated in the project, implementing a structured sequence of AI literacy lessons from Year 2 to Year 6 and contributing evidence through surveys, teacher interviews, pupil voice activities and case studies.

The findings indicate that pupils enter lessons with limited and often inaccurate understandings of AI. Many associated AI primarily with robots, and few recognised the role of data or human oversight. Following the lessons, pupils demonstrated more accurate mental models and a greater understanding of how AI is used in everyday life. The proportion of pupils describing AI mainly as robots reduced substantially, while concerns about inaccurate information and fake content increased, suggesting that pupils developed a more critical understanding of AI systems.

The project also found that children are increasingly using generative AI tools from a young age. By summer 2026, around two-thirds of pupils involved in the pupil voice activities had used an AI chatbot at home, some doing so without adult supervision. This highlights an urgent need for both pupil and parent education about safe and responsible use.

Teacher confidence emerged as a significant factor influencing the successful delivery of AI literacy education. Although teachers generally recognised the importance of AI literacy, many lacked confidence in explaining how AI works or discussing it with pupils. Teachers who delivered the lesson sequence reported substantial increases in confidence, with 87% feeling more confident after participating in the project. Comprehensive lesson materials, teacher guidance videos and collaborative professional learning were identified as critical success factors.

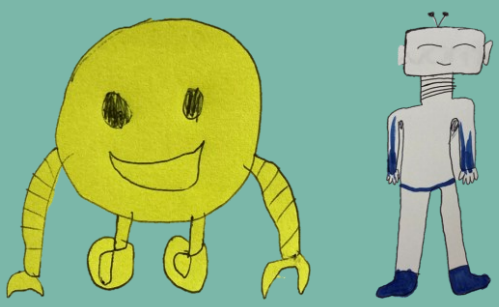
The project concludes that effective AI literacy education should combine an age-appropriate understanding of how AI works with opportunities to explore its benefits, risks and ethical implications. It should begin in Key Stage 1, be revisited throughout the primary years within computing, and reinforced as part of online safety and RSHE education, and in the wider curriculum as relevant. Schools will require ongoing professional development, comprehensive teaching materials, robust governance frameworks and support for parental engagement to deliver this work effectively.

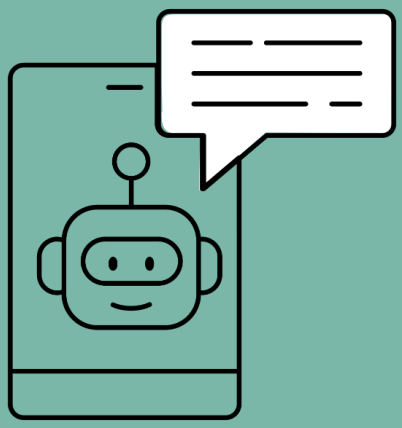
Teaching about AI in Primary Schools Research Project: Key Findings

What is AI?

Prior to lessons, 58% of pupils interviewed associated AI with **robots**.

Post lessons it was 35%.





Pupil Use of AI

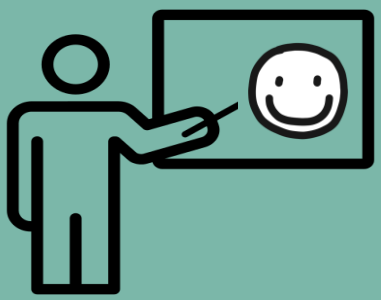
Two thirds (68%) of pupil voice participants (year 2 to year 6) were using AI chatbots in summer 2026.

30% of these users were doing so at times without adult supervision.

Awareness of risks

Pupils are aware of a range of risks associated with AI, including hallucinations, fake content, cognitive offloading, and environmental impact.

"I'm […] worried because it's changing lives in a bad way so it can corrupt young people to rely on AI for everything"

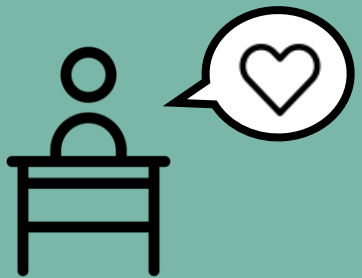


Teacher confidence

87% of teachers who taught the lessons reported an increase in confidence.

Engagement

96% of pupils interviewed enjoyed the AI lessons and wanted to learn more.



Introduction

Artificial intelligence (AI) has become one of the most significant developments facing schools in recent years. Within a short number of years, generative AI tools have moved from emerging technologies to being built into everyday tools that children accessing, from Google AI summaries to AI chatbots in messaging applications. At the same time, our young people are exposed to AI-generated images, text and videos through all channels where they consume media.

The Curriculum and Assessment Review, *Building a World-Class Curriculum for All*, published in November 2025 recommended that all pupils should learn how to use AI effectively, understanding both its strengths and limitations, from 2028.[1] However, there is currently no consensus on what AI literacy education looks like for pupils in the primary phase or structured resources for teachers to access.

As schools began to explore the opportunities and risks presented by Generative AI, Learn Sheffield established a series of professional learning opportunities alongside a city-wide network to support schools in developing their understanding of AI. Through these conversations it became clear that schools required more input over time. Leaders wanted opportunities to develop governance frameworks, evaluate emerging practice and investigate the real-world impact of AI within their own settings. Teachers wanted comprehensive teaching materials and guidance on how to teach about AI to pupils.

In response, Learn Sheffield launched the AI Research Programme during the 2025-26 academic year with two strands – one investigating staff use of AI, the other exploring how to teach about AI in primary schools. At the same time, we developed a sequence of AI Literacy lessons that could be taught as part of the existing computing curriculum, from year 2 to year 6 (ages 5-11), which were then used as a focal point for the latter project. This report presents the findings from the Teaching about AI in Primary Schools project and the implications and recommendations for schools and policy makers. In total, teachers from 9 primary schools took part, with 8 completing the full project and case study. The project was jointly funded by the participating schools and Learn Sheffield.

Project Questions

The project was designed around four core questions:

1. What do primary-age children know about AI and how are they using it?
2. How do we teach primary-age pupils in a safe and effective way about AI?
3. What support do teachers require in order to teach about AI effectively?
4. What is the impact of teaching a structured sequence of AI Literacy lessons on pupil knowledge and teacher confidence?

[1] Francis, B. (2025). Curriculum and assessment review final report: Building a world-class curriculum for all.

Who led the project?

Learn Sheffield is a not-for-profit schools company, part owned by individual schools and the local authority. Our purpose is to enhance the life chances of children and young people in Sheffield, and we work with and through our member settings to achieve this by providing high quality school improvement support for Sheffield settings, leading collaboration within and beyond our education sector and being the 'glue' in the education system of our city.

The project was led by Catherine Moore. Catherine leads Learn Sheffield's Computing & Digital Innovation Centre, supporting schools in the city and nationwide with consultancy, curriculum resources and training for computing and the effective use of educational technology, including AI. She has authored several computing curriculum resources for primary and special schools, and leads the Sheffield AI work group.

It is also important to note that this was a collaborative project, with the group forming a community of practice, sharing experiences and learning. This was an essential aspect of the project and helped to ensure its success.

Wider Context

Artificial intelligence in education has moved remarkably quickly from a future consideration to an immediate reality for schools. A November 2025 survey by the UK Safer Internet Centre revealed that 97% of 8- to 17-year-olds in the UK are already using AI tools. While this figure encompasses everyday tools like smart speakers and search engine summaries, almost a quarter (24%) of 8 to 12-year-olds report using AI chatbots such as ChatGPT at least weekly.[2] Furthermore, 41% of the young people surveyed "think that AI can be a great source of emotional support". Considering that chatbots have been designed to be agreeable which may lead to AI dependence, and AI can't assess risk to the user, this is concerning. Outputs may not be factually correct, and there have been "reports of exposure to sexualised conversations and prompts to engage in self-harm or suicide"[3] through these tools. Education about AI is essential to support children to recognise the risks and engage in more responsible use of the technology.

In England, what an AI curriculum might look like still remains unclear. The current computing programme of study, introduced in 2014, covers online safety and data and information from key stage 1, but makes no explicit reference to artificial intelligence. The final report of the Curriculum and Assessment Review recommended making digital and AI literacy more explicit, and prioritising media literacy in the statutory primary curriculum.[4] The review also concluded that computing should remain the main subject for teaching digital literacy, but that greater clarity is needed on what should be taught at each key

[2] UK Safer Internet Centre. (2026). Smart tech, safe choices: Exploring the safe and responsible use of AI.
[3] Negreiro, M. & Anaç, Ö.D. (2026). The spread of AI companions and the challenges they generate.
[4] Francis, B. (2025). Curriculum and assessment review final report: Building a world-class curriculum for all.

stage. The government's response committed to a reformed curriculum in which pupils learn from a young age how computers are trained using data, alongside AI literacy, and aiming for implementation from September 2028. This means two years before children are supported with any statutory teaching about artificial intelligence.

In the meantime, schools are working within a patchwork of non-statutory and safeguarding guidance. This includes the Department for Education's guidance on generative AI in education[5] and its product safety expectations for AI tools.[6] Together these shape what pupils may use, but say little about what they should be taught. *Keeping Children Safe in Education* guidance for 2026 includes specific reference to generative AI and deepfake content from the point of view of a school's statutory safeguarding duty.[7] In terms of teaching children about these risks, Relationships, Sex & Health Education (RSHE) is the current home for online safety content. Many of the curriculum statements are relevant to teaching about AI for example around what makes a good friend, that people get lonely, information about stereotypes, and how to critically evaluate online content.[8] However, AI is not mentioned explicitly.

A number of organisations have published content aimed at teaching about the safeguarding risks of AI with young people, for example Common Sense Media,[9] UK Safer Internet Centre,[10] and the South West Grid for Learning.[11] Much of this content is aimed at older learners, from key stage 2 and above. The results from our study show that AI use starts earlier than this. Safeguarding our young people is obviously a priority for schools, particularly as many of the risks are amplified through the use of AI – for example around cybersecurity, scams, mis- and disinformation, social companions, and creation of child sexual abuse material using nudifying software, but this is only one dimension of an effective AI literacy curriculum. Fully understanding the risks and limitations of AI requires a grounding in the fundamentals of how artificial intelligence and machine learning work. We should also recognise the economic imperative for educating children about a technology that will have an impact on the jobs they will be doing as adults, at the same time as preparing them for all aspects of life in a digital world. Teaching a balanced AI literacy curriculum of risks and wider societal impact and benefits will enable pupils to engage with the technology from an informed position.

The role of equity should also be a consideration in any discussion about AI literacy education, to ensure that existing gaps are narrowed, not widened. Firstly, children's experiences of AI outside school differ markedly. Access to devices, home connectivity, parental confidence and household attitudes to technology will shape how early, how often

[5] Department for Education. (2025). Generative artificial intelligence (AI) in education.
[6] Department for Education. (2026). Generative AI: product safety standards.
[7] Department for Education. (2026). Keeping children safe in education.
[8] Department for Education. (2026). Relationships and sex education (RSE) and health education.
[9] https://www.commonsense.org/education/collections/ai-literacy-lessons-for-grades-k-12
[10] https://saferinternet.org.uk/safer-internet-day/safer-internet-day-2026
[11] https://swgfl.org.uk/topics/artificial-intelligence/

and how critically children encounter AI tools. Research shows that AI literacy is linked to socio-economic status, and lower-income parents may approve the use of AI technologies without fully understanding the risks.[12] Schools may therefore be the only place where some pupils receive structured guidance.

Secondly, AI tools offer real benefits for some learners, for example text-to-speech, transcription, simplification of content, and translation for pupils with special educational needs and disabilities (SEND) or English as an additional language (EAL). Educators should be ensuring that young people have the opportunity to learn about tools that may have a considerable impact on their access to learning and communication. At the same time, we know that online risks can be higher for vulnerable learners, including those with SEND, in terms of conduct, compulsion (an inability to manage online life and problems caused as a result), harmful content and cyberscams.[13] AI tools and media are now contributing to all of these risks.

Third, bias is a literacy topic in its own right as well as an inclusion issue. Documented disparities in facial recognition systems,[14] and the finding that some AI-text detectors disproportionately misclassify writing by non-native English speakers as machine-generated,[15] show that the systems pupils will meet were not built equally for everyone. The training data for AI models also overrepresents certain languages, cultures and viewpoints, and pupils whose backgrounds don't align with these may find that AI outputs misrepresent or ignore them. Systems are often based on neurotypical interaction patterns, creating barriers for neurodivergent learners.[16] Teaching about AI therefore needs to address these biases and resources should reflect diverse pupils and examples.

Finally, equity depends on teachers. A report by the Sutton Trust last year found that teachers in private schools are more than twice as likely to have received formal training in AI than state school teachers (45% vs 21%).[17] Staff confidence in the subject varies widely, so effective provision must be accessible to non-specialists in all settings, adaptable for different needs, and supported by professional development so that quality does not depend on which school a child attends.

[12] Negreiro, M. & Anaç, Ö.D. (2026). The spread of AI companions and the challenges they generate. European Parliament Briefing.
[13] Katz, A. and A. El Asam, A. (2020). Refuge and Risk: Life Online for Vulnerable Young People. Youthworks in partnership with Internet Matters.
[14] Buolamwini, J., & Gebru, T. (2018). Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification.
[15] Liang, W., Yuksekgonul, M., Mao, Y., Wu, E., & Zou, J. (2023). GPT detectors are biased against non-native English writers.
[16] UNESCO IITE (2026). Report on the Use of AI and ICT to Support the Inclusion of Children with Autism, ADHD and Learning Disabilities.
[17] Latham, K. & Montacute, R. (2025). Artificial advantage?



AI Literacy

We believe that AI literacy should be a fundamental part of all young people's education, in line with the Royal Society in their recent literature review that "takes the position that AI literacy is not just for those children who are interested in computing (i.e., AI literacy is not teaching and learning for AI). Instead, given that AI is increasingly impacting every aspect of everyone's lives, and that it has profound human, environmental and social consequences, some form of AI literacy (i.e., teaching and learning about AI) is necessary for all children, whatever their interests or career aspirations."[18]

This is not a radical viewpoint, but there is a lack of an agreed definition of what AI literacy actually means. Long & Magerko defined it as, "a set of competencies that enables individuals to critically evaluate AI technologies; communicate and collaborate effectively with AI; and use AI as a tool online, at home, and in the workplace"[19] - coined in 2020 before the advent of publicly accessible generative AI. The UNESCO AI Literacy Framework states that "AI Literacy represents the technical knowledge, durable skills and future-ready attitudes required to thrive in a world influenced by AI. It enables learners to engage, create with, manage and shape AI, while critically evaluating its benefits, risks and ethical implications."[20] This recognises the essential role of learner attitudes in being able to interact effectively with AI, and the importance of balancing young people's awareness of the risks and benefits of the technology with practical knowledge about how and when to use AI tools. The Council of Europe defines the three dimensions of AI literacy more explicitly. Furthermore, it acknowledges that these three dimensions are fundamentally interlinked – it is impossible to use AI safely and critically without sufficient knowledge about how a system works:

- The **technological** dimension: How Artificial Intelligence works and how it might be developed.
- The **practical** dimension: How Artificial Intelligence can be used effectively.
- The **human** dimension: The impact of AI on humans, human rights, democracy and the rule of law.[21]

Organisations are gradually reaching a consensus on what AI Literacy actually is, but there is currently little guidance on what AI literacy education actually looks like for pupils in the primary phase. Yim & Su's review of the literature in 2025 concluded that it encompasses digital literacy, interaction and collaboration with AI systems, data literacy, computational thinking and AI ethics.[22] The practicalities of interaction and collaboration with AI systems

[18] Hillman, V., Holmes, W. & Duarte, T. (2026). A Rapid Review of AI Literacy Frameworks, with Policy Recommendations A report prepared for the Royal Society.
[19] Long, D. & Magerko, B. (2020). What is AI literacy? Competencies and design considerations.
[20] OECD / European Union (2026). Empowering learners for the age of AI: An AI literacy framework for primary and secondary education.
[21] Council of Europe. (2025). Discussion paper on Draft Recommendation on AI literacy
[22] Yim, I.H.Y., Su, J. (2025). Artificial intelligence literacy education in primary schools: a review.

presents a challenge for primary teachers, namely the tension between ensuring children learn about how the technology works, whilst avoiding encouraging the use of AI tools that are not appropriate for younger learners, and that are indeed often age-restricted.

The materials developed for this project are an attempt to address this tension with a careful selection of age-appropriate tools and guidance for teachers on when and how to model any generative AI chatbots, whilst also accommodating all three dimensions of AI Literacy.



Lesson Materials

The materials include a sequence of 2 lessons per year group, from year 2 to year 6 (spanning the age range from 5 to 11 years).

The following table outlines the content for each year, each consisting of two lessons:

	Year	Title	Content
Key Stage 1	Year 2	**AI Around Us**	Simple introduction into how AI programs identify patterns to recognise images; exploring smart speakers and the kinds of questions they can and cannot answer; basic rules about AI
Lower Key Stage 2	Year 3	**How to Train a Computer**	Introduction to machine learning using an interactive tool, including reliability of data plus a recap on smart speakers and what questions they can answer.
	Year 4	**Creating Images with AI**	Revisiting machine learning and how computers identify images; introduction to generative AI and why people might use it to create images for positive and negative reasons.
Upper Key Stage 2	Year 5	**What is Artificial Intelligence?**	Investigating machine learning including the role of bias and importance of high-quality data. Building knowledge of generative AI and how chatbots work to generate text; discussion on the ethical considerations of using AI chatbots around misinformation, environmental impact, and social companions.
	Year 6	**What is Generative AI?**	Building knowledge about generative AI, including large language models and image generators using unplugged and online activities; discussion about the ethical considerations of generating images, including misinformation, impact on jobs, and bias.

There is also a complete unit for year 5 of six lessons available, which includes programming content using the face-sensing blocks in Scratch or the machine learning capabilities of the micro:bit. This wasn't taught as part of this research project.

Each lesson in the series was designed to complement the content of the computing curriculum in each year group, specifically building on knowledge taught in the Computer Systems & Networks units in the Teach Computing Curriculum,[23] as this was the curriculum taught by the majority of the schools in the project. However, they can be fitted into any curriculum as part of a unit about how computers and networks work. Each set of two lessons includes the fundamentals of how AI works, common uses and real-world benefits, and the risks of using AI at an age-appropriate level.

The lessons include a range of pedagogies and activities:

- Unplugged activities to introduce and explore key concepts.
- Age-appropriate interactive AI tools, such as Google Quickdraw[24] or Oceans AI from code.org.[25]
- Group discussion guided with prompts around the ethical aspects of AI.
- Programming activities (in optional upper key stage 2 lessons and full year 5 unit).

Year 1 wasn't included in the sequence of lessons, as time is better spent ensuring pupils develop key skills and foundational knowledge about computers. There is, however, still scope for introducing the term artificial intelligence to our youngest learners, including in the early years, in relation to common technologies such as smart speakers, and discussing questions such as:

- Who are you talking to when you talk to a computer/smart speaker?
- Can a computer be a friend?
- Is this picture real?

Additional Learning Materials

Each lesson is underpinned by a set of learning outcomes, for example:

- ❑ Recognise that some people you talk to on the computer aren't real
- ❑ Explain that AI isn't alive, and it doesn't have feelings or understand like humans
- ❑ Identify reasons why people might create content using AI.

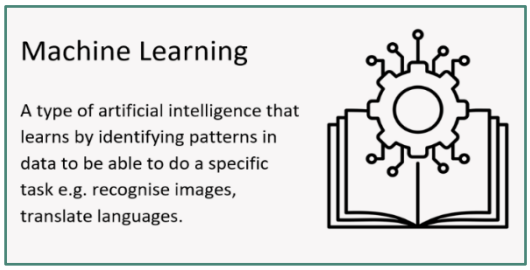
These have been developed for each phase: key stage 1 (years 1 and 2), lower key stage 2 (years 3 and 4) and upper key stage 2 (years 5 and 6), and cover the different dimensions of AI literacy in an age-appropriate way.

There is also a RSHE & AI Literacy appendix that maps the statements included in the Relationships, Sex and Health Education curriculum to the main AI messages for each phase. This gives schools the opportunity to revisit the key ethical considerations in a different context as part of the RSHE curriculum. For example, when talking to young people about what makes a good friend, you can discuss whether a computer or an AI companion can be

[23] https://teachcomputing.org/
[24] https://quickdraw.withgoogle.com/
[25] https://studio.code.org/courses/oceans/units/1/lessons/1/levels/1

a friend. It also allows for more sensitive topics to be covered as and when appropriate, e.g. nudifying software, misinformation relating to eating disorders etc. that may be perpetuated by an AI chatbot.

Finally, we designed an AI Glossary containing the key terms, a suitable image and an age-appropriate definition. These definitions were co-developed with the participants on this project and represent a best attempt at making sure the vocabulary is understandable whilst not over-simplifying it to a point at which it is meaningless or introduces misconceptions.



All three supplementary resources are free for schools to use with attribution and how to access them can found in the appendix. The lesson sequence has been made available for free to Sheffield schools, and as a paid-for resource outside the city.

What is AI?

Artificial Intelligence (AI) refers to computer systems capable of performing tasks that would previously have required human intelligence, such as recognising patterns, generating language, solving problems and making predictions. AI is already embedded within many technologies used daily by schools, staff and pupils, including predictive text, translation tools, recommendation systems and productivity software. This form of AI is called machine learning, or predictive AI.

The past decade has seen the advent of generative AI in freely available tools. Generative AI tools create new content such as text, images, video, audio and code based on prompts provided by users. Generative AI models are trained on large amounts of data, and form a response by looking at patterns in this training data – essentially creating a highly probable output, that may or may not be true. In order to understand generative AI and its risks, a grounding in machine learning and the role of accurate and complete datasets is important. However, for primary age pupils, a more precise understanding of the exact mechanics of how AI works is not necessary.

Generative AI presents a number of risks and ethical questions that pupils should be aware of (at an age-appropriate level), including those relating to:

- Cybersecurity
- Data privacy
- Safeguarding concerns
- Inaccurate outputs and bias
- Intellectual property right and copyright
- Environmental concerns
- Cognitive offloading.

Methodology

Nine schools were recruited to participate in the project during autumn 2025 through word of mouth, existing networks (e.g. the Computing Leader Network) and emails to headteachers. Eight of these completed the project and the case study. The majority of participants were computing subject leaders, plus one classroom teacher. The project adopted a collaborative action research approach. Participants attended a structured programme of professional development sessions throughout the academic year, including reviewing the sequence of lessons. They then taught, or supported the teaching of, the lessons in their own setting and collected data as part of the process.

Data collection methods included:

- Staff surveys post intervention
- Pupil surveys post-intervention
- Teacher reporting on the main themes raised in lessons by pupils
- Pupil voice interviews in 2 schools, pre- and post-intervention by the lead researcher
- Interviews with co-researchers by the lead researcher
- Case study reports by project participants.

The lead researcher conducted the pupil voice interviews in two contrasting settings, in terms of location, numbers of SEND learners, socio-economic status of pupils and mobility. Responses were verbal, written and drawn. Qualitative responses were analysed using thematic analysis, and the study was conducted following BERA ethical guidelines.

Limitations

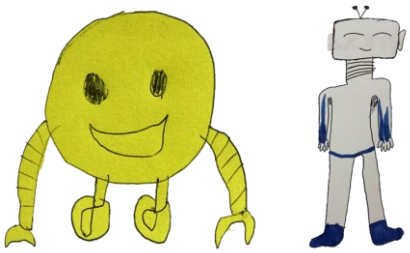
This report represents findings from a relatively small group of schools within one geographical area. As a result, findings may not be directly generalisable to all settings. Data collection methods varied between participating organisations and much of the evidence is based on self-reported perceptions from staff and pupils, which may be subject to social desirability or recall bias. Responses during the pupil voice sessions may be subject to peer-influence, although the use of written or drawn responses for some questions helped to mitigate this. For most schools, data was only collected post-intervention, negating the possibility of comparison. Furthermore, because the project lasted one academic year, evidence relating to pupil outcomes remains limited.

Key Findings

Measure		Number	
Number of primary schools & co-researchers		8	
Number of classes taught the AI lessons *(Y2 - Y6)*		Approximately 70	
Pupil voice participants - pre-lessons	*School 1*	19 *(Y2-Y6)*	36 unique participants in total
	School 2	7 *(Y5-Y6)*	
Pupil voice participants - post-lessons	*School 1*	19 (Y2-Y6)	
	School 2	15 *(Y2-Y4, Y6)*	
Pupil survey responses		108 pupils *(Y2-Y6 in one school)*	
Teacher survey responses		38 teachers in 5 schools	
Teacher survey respondents who have taught the Sheffield AI lessons		15	

Pupil knowledge & attitudes

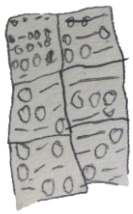
Feedback from across the schools in the project indicated only a basic knowledge of AI among pupils before lessons were taught. Many had heard of AI but didn't necessarily know that it stood for artificial intelligence.



What is AI?

Children demonstrated a number of misconceptions about AI. When asked what AI is or looks like pre-intervention as part of the pupil voice sessions, 58% wrote down or drew robots (from a total number of 26 pupils).

> *I've drawn a robot and bald people – because AI robots don't have hair*
>
> *- Year 6 pupil (pre-lessons)*



Year 2 drawing – What does AI look like? (post lessons)

> *I've drawn a computer – the place where all the AI goes*
>
> *- Year 2 pupil (post-lessons)*

The mentions of robots decreased to 35% in the interviews post-lessons, and in the first school around a quarter of pupils across all year groups demonstrated more accurate mental models: talking about data centres, humans training AI, and analysing patterns.

In the school where 108 pupils were surveyed post-lessons from year 2 to year 6, when asked “What do you think AI is?” the top answers referenced:

1. Computers or technology, including the internet = 18%
2. Something that provides information or answers = 11%
3. Intelligence or learning (not just artificial intelligence) = 9%
4. Being trained or controlled by humans = 5%
5. Games = 5%

Only 3% mentioned robots, and the majority left the question blank, wrote artificial intelligence or said they didn’t know.

Risks & Benefits of AI

Prior to the lessons, younger pupils in year 2 couldn’t generally name any examples of what AI was used for. In key stage 2 (ages 7-11), learners were aware you could use it to find information, solve problems or to be creative, but had limited awareness of wider real-world uses. One child mentioned AI glasses and another talked about self-driving taxis. Post lessons, pupils across all phases talked about the use of AI to find information, help with homework, play songs and create content. Wider-world uses and benefits were still mostly absent from responses.

Older pupils in key stage 2 had a basic knowledge of the risks of AI before being taught the lessons, including scams and the environmental impact. There were also a number of mentions of AI going wrong and taking over the world in all age groups.

> *It’s not as good for the planet, because the electricity harms it and it makes the world hotter*
>
> *- Year 2 pupil (pre-lessons)*

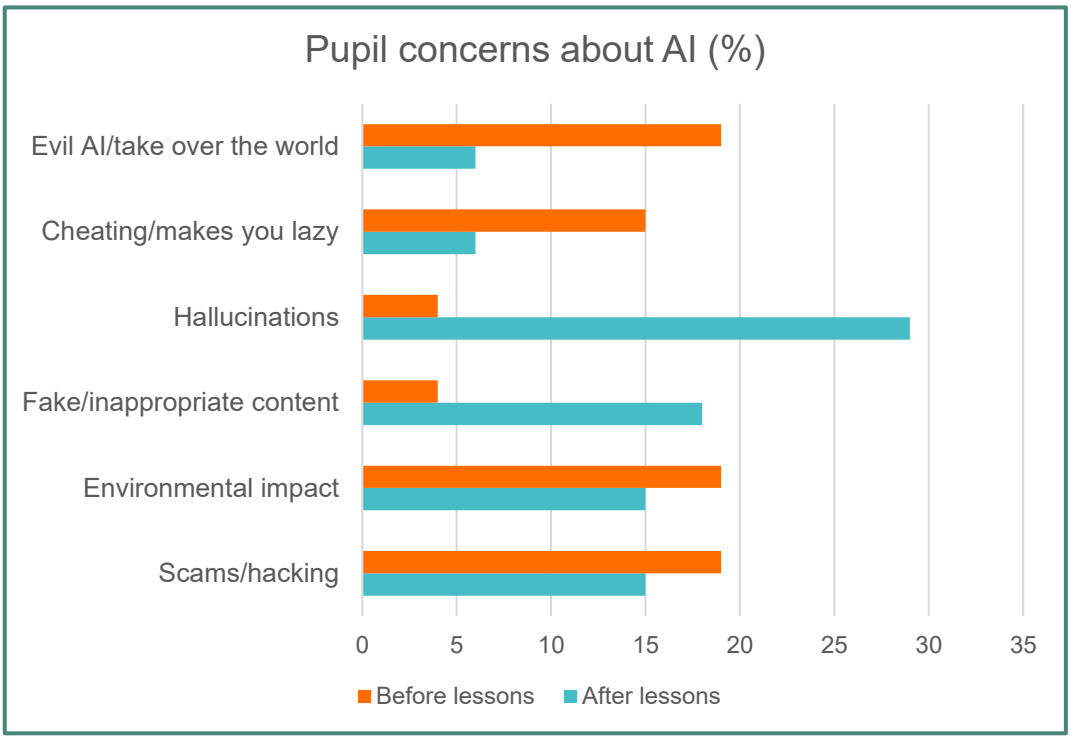
Interestingly, there was a marked difference in concerns between the two schools – in the first school, a quarter of pupils mentioned the environmental impact of AI (26%). The year 5 and 6 pupils in school 2 didn’t mention the environment at all, but recognised the danger that AI might make us all lazy or that people could lose their jobs – concerns that were absent in the first school.

> *AI may get corrupt, and that makes me anxious, it might take over the world*
>
> *- Year 6 pupil (pre-lessons)*

> *I’m starting to get worried because it’s changing lives in a bad way so it can corrupt young people to rely on AI for everything*
>
> *- Year 5 pupil (pre-lessons)*

Post lessons, these concerns were all still present. What was notable, however, was that where previously very few children had mentioned fake or inappropriate content, or AI getting things wrong (hallucinations), after lessons these concerns were more common.

In fact, hallucinations were the top concern among the pupils in the two schools, with nearly a third mentioning it as an issue. At the same time, the number of pupils describing AI as something evil or that might take over the world reduced considerably (from 19% to 6%).



Pupil attitudes towards AI

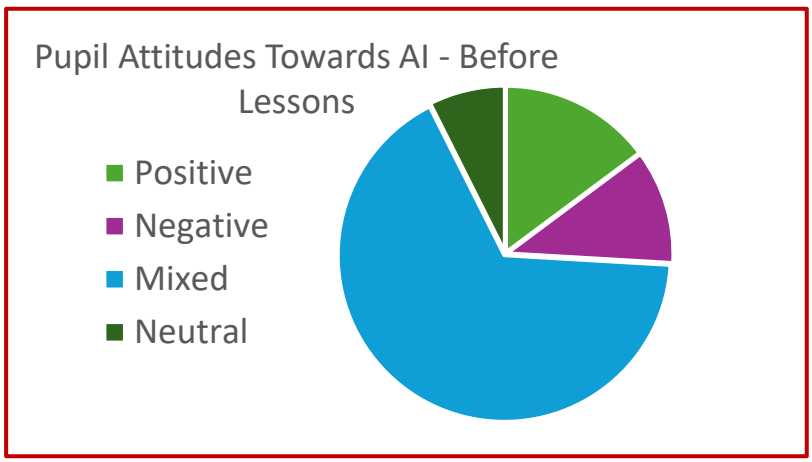
Pupils' attitudes towards artificial intelligence varied greatly. Prior to lessons being taught, two thirds (67%) of pupils who took part in the pupil voice sessions had mixed (positive and negative) attitudes towards the technology. After lessons, this was still the predominant response, but had reduced to 41%, with a quarter of children holding positive views (24%, up from 15%). Interestingly, the majority of the positive responses came from the youngest learners in year 2 (6 out of 8). See the breakdown in attitudes in the graphs below.

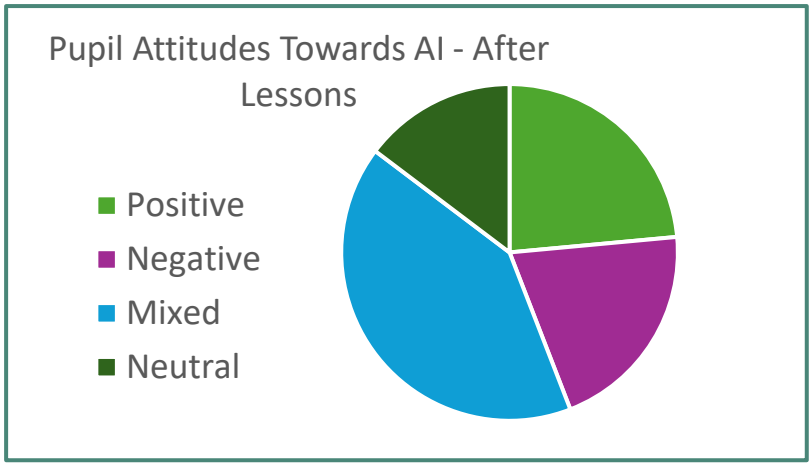
I don't really like AI and I also do like it. AI is taking over the world but at the same time it helps me with all sorts.

- Year 5 pupil (pre-lessons)

Very sad to very happy

- Year 2 pupil (post-lessons) when asked 'How do you feel about AI?'





Negative attitudes linked to children's concerns about AI, and a fifth of pupils said they were worried or scared about the technology (21%). Positive attitudes mainly linked to the opinion that AI can be helpful and over a third of learners talked about the technology in this way (35%).

Questions

The young people interviewed in the pupil voice sessions and who filled in the surveys had a lot of questions about AI. These provide an insight into their attitudes, and also pose difficult questions for teachers to consider about the purpose of education:

- ❑ Will it take humans jobs? Will it get out of control and try to kill humans? *(Y4 pupil)*
- ❑ Why would someone invent a thing that's so bad? *(Y5/6 pupil)*
- ❑ Is it a good thing or a bad thing to do? *(Y5/6 pupil)*
- ❑ Where does all this knowledge come from? *(Y4 pupil)*
- ❑ Can AI make up any pictures you want? *(Y2 pupil)*
- ❑ Why did people want to start AI? *(Y3/4 pupil)*
- ❑ Do you think it will help us in the future? *(Y5/6 pupil)*
- ❑ Do factories make them? *(Y3 pupil)*
- ❑ Why do we have to go to school if we have AI? *(Y2 pupil)*

> *Why do we have to go to school if we have AI?*
>
> *- Year 2 pupil (pre-lessons)*

Anthropomorphism

Anthropomorphism in this context is the attribution of human characteristics, motivation and emotions to inanimate objects or technologies.

Anthropomorphism is undesirable, as it can lead children to:

- overestimate an AI system's capabilities
- assume an AI system has certain qualities such as empathy and moral judgement
- rely on AI for relationships, that may lead to unintended influence or manipulation
- place undue trust in an AI system's outputs and overestimate capability
- develop incorrect mental models about AI systems.[26]

Research in 2024 by Whyte et al found that secondary learners frequently held naïve conceptions relating to AI systems having agency or emotions (around 14% of the cohort surveyed).[27]

This study encountered a similar proportion of pupils with this misconception. Prior to lessons being taught, 19% of the pupils in the pupil voice activity talked about AI in human-like terms. This reduced to 15% post-lessons. Among the 108 pupils surveyed at one primary school after the lessons, the proportion was 10%.

AI doesn't want to be shut down

- Year 5/6 pupil (pre-lessons)

It lies

- Year 4 pupil (post-lessons)

It can go evil

- Year 3 pupil (post-lessons)

At the same time, a number of pupils recognised that humans controlled, trained and built AI tools, and that in cases of misuse, it was the fault of bad actors, not the technology itself. Before lessons, 15% of children talked about humans misusing the technology, compared with 21% after lessons had been taught.

Sometimes people use it for weird stuff, they make weird videos or photos

- Year 6 pupil (pre-lessons)

People can make fake things and trick people, it could help people hack others

- Year 5 pupil (post-lessons)

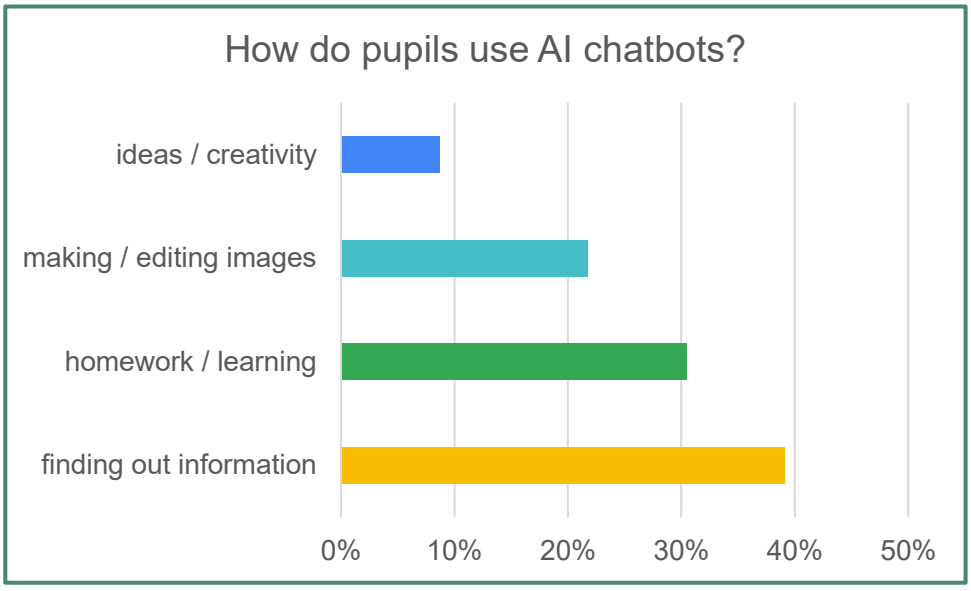
As teachers and educators, we can be careful with the language we use when talking to young people about the technology. For example, avoiding terms such as 'think', 'know',

[26] Placani, A. (2024). Anthropomorphism in AI: hype and fallacy.
[27] Whyte, R., Kirby, D., & Sentence, S. (2024). Secondary Students' Emerging Conceptions of AI: Understanding AI Applications, Models, Engines and Implications.

and ‘understand’, and referring to an AI program (for younger learners), model or system rather than just AI (‘the AI program can help us’ versus ‘AI can help us’). We should also avoid the personification of AI in images and naming, although this is common in the imagery provided in teaching materials elsewhere (e.g. the Oceans AI Bot from code.org[28]) and the naming of tools such as Alexa and Claude. The Raspberry Pi Foundation goes further, for example, recommending replacing terms such as ‘create’ and ‘recognise’ with ‘generate’ and ‘detect’.[29] For younger pupils in primary schools this is not practical, and Whyte et al. also consider whether anthropomorphism may function as a scaffolding mechanism for younger learners to understand complex concepts. It is advisable, however, for teachers to avoid representing AI as a sentient being and to start introducing more precise terminology in key stage 2.

Pupil Use of AI

At the start of the project in autumn 2025, conversations with the project participants and other teachers indicated that generative AI was rarely mentioned by children, particularly in key stage 1. Almost all children had smart speakers at home, but they generally weren’t aware that these used AI. During the pupil voice interviews in December at one school, only 22% had used an AI chatbot (usually ChatGPT) at home, and this only included pupils in key stage 2. In addition, 2 pupils had used it in a lesson, modelled by a teacher. By the time of the June interviews, this had increased to 74%, including half of the year 2 pupils. At the second school, 60% of children were using AI chatbots in June 2026. At the same time, almost a third (30%) of chatbot users across both schools were using the technology unsupervised, although children were generally using parents’ devices with permission to access the tools.



[28] https://studio.code.org/courses/oceans/units/1
[29] Garside, B. (2023). How anthropomorphism hinders AI education.

The most common use of AI chatbots was for finding information (39% of pupils, post-lessons), with just under third using them for help with homework or to learn something (30%). One fifth created or edited images with AI (22%) and a smaller number of pupils used chatbots for other creative uses, such as making games or writing poems, and for ideas and inspiration (9%).

> *I use it for baking, if I don't have the ingredients. If my parents don't know answers on my homework they can ask it to break it down*
>
> *- Year 6 pupil (post-lessons)*

Rules for using AI

During the pupil voice interviews, the key stage 2 learners in one school were asked 'Are there any rules you should follow when using AI?' Children talked about the importance of asking permission or telling parents if they saw something that upset them, not putting personal information into AI tools, and not doing anything inappropriate ("Don't tell it bad things!") There was a slight increase in awareness post-lessons:

Rules for using AI	*Number of pupils (total = 13)*	
	Pre-lessons	**Post-lessons**
Check with parents/trusted adult	3	5
Don't enter personal information	3	4
Don't do anything inappropriate	2	2
Don't spend too long on AI	1	0
Some AI tools are 13+	0	1

Prior to lessons, none of the year 5 and 6 pupils mentioned asking parents for permission or checking if things upset them. After the lessons, there were 3 mentions by this age group. One lower key stage 2 pupil, after they had been taught the content, said, "don't train AI the wrong way", as it might scam people.

Teacher perspectives

A survey was completed by 38 teachers across 5 primary schools in the summer term in 2026. When asked to rate their confidence in talking to pupils about AI and teaching the key concepts (where 1 is low and 5 is high), the average was 3.36, with just over half rating themselves as a 4 or 5 out of 5 (53%). Teachers of upper key stage 2 classes were the most confident (average = 3.9) and unsurprisingly, early years teachers had the lowest confidence (average = 2.33).

In terms of the foundational AI concepts and terminology, teachers possessed variable knowledge. They all felt that they had at least some idea of what AI was, and the majority of teachers had heard of chatbots and generative AI. However, nearly a quarter of teachers

had never heard of machine learning, and half of teachers had never encountered the term large language model before (an AI model that analyse and generate human-like language).

Key term >	Artificial Intelligence	Machine Learning	Generative AI	Chatbot	Large Language Model
Never heard of it	0%	24%	8%	5%	50%
Heard of it, but not sure what it means	0%	18%	29%	11%	26%
Some idea of what it means	37%	34%	42%	45%	13%
Could explain it to someone else	63%	24%	21%	39%	11%

Of the teachers that completed the survey, 15 had delivered the Sheffield AI lessons, and 87% reported that they felt more confident talking to pupils about AI as a result (the remainder reported no change in confidence). The AI project leads in all schools reported similar findings from their colleagues:

"Teacher confidence increased across the school, supported by high-quality video guides, shared professional dialogue and targeted modelling from the Computing Lead. Survey data shows that among teachers who taught AI lessons this year, five felt 'a lot more confident' and seven felt 'a bit more confident', with only two reporting no change. This represents a substantial uplift from initial confidence levels, where many teachers rated themselves 2 or 3 out of 5 and expressed uncertainty about their subject knowledge."

AI Project Lead

The teacher video guides that were provided alongside the lessons take teachers through each lesson and the key terms. These were cited by all AI project leads as being impactful:

"Teachers have rapidly grown in confidence. The lessons and support videos have really boosted their subject knowledge. They are keen for it to become an embedded part of the computing curriculum."

AI Project Lead

"The video guides […] were extremely helpful as they provided clear explanations and key messages, helping to keep the lessons focused and ensuring that information was communicated accurately without being misleading."

AI Project Lead

Finally, there were a number of teachers who were initially distrustful of the technology and unsure about the appropriateness of teaching it to young children. The professional development sessions delivered by project leads addressed these concerns and reinforced why it was important to be teaching the subject to younger learners. The lesson content and activities also reassured teachers that risks were addressed sufficiently and children weren't encouraged to use AI without oversight. In one school, the AI project lead reported that,

> *"The lessons prompted rich professional conversations, helping staff clarify misconceptions, share strategies and build a more cohesive understanding of how to teach AI safely and effectively."*
>
> *AI Project Lead*

Lesson content

96% of children interviewed enjoyed the lessons and all of them wanted to learn more about AI. All of the project participants reported that pupils were engaged, excited and interested in the lessons:

> *"The pupils thoroughly enjoyed the AI lessons and were highly engaged throughout."*
>
> *AI Project Lead*

Children particularly enjoyed the interactive tasks, both online (for example Google Quickdraw was requested in one year 2 class on a regular basis) and unplugged (the Kopemon activity worked well in year 5 – you can find out how to access this in the appendix).

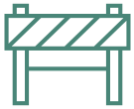
> *"The kids found lessons really fun and they really like the interactive side of it."*
>
> *AI Project Lead*

The discussion elements provided valuable opportunities for children to examine different opinions and express themselves without fear of judgement.

> *"A lot of the teachers, […] the main thing they reported back to me - they were basically, 'we had a fantastic discussion about AI.'"*
>
> *AI Project Lead*

Teachers felt that the materials were pitched at a suitable level, although there was consensus that the number of new terms was hard for younger pupils to remember, and was also challenging for those with English as an additional language (EAL). Feedback indicated that there was a lot of content for an hour-long lesson where there was no prior knowledge to build on, and some participants took more time to cover it all.

Another limitation of the lessons was that pupils didn't necessarily retain a great deal of information after only two lessons, and teachers agreed they would benefit from repeated exposure to the key terms and concepts in order for it to become embedded. This was anticipated at the start, but the congested nature of the curriculum meant we had limited opportunities to introduce the AI lessons. Space was found within the Computer Systems & Networks unit if schools were teaching the Teach Computing Curriculum, allowing the basics to be delivered as a minimum. The complete year 5 unit, made up of 6 lessons, is one attempt to address this issue, and is pitched at an age where use of social media and AI tools is more common, and the cognitive level of pupils allows for more complex topics to be addressed. In addition, the RSHE & AI Literacy Appendix provides opportunities for teachers to reintroduce key messages as part of any online safety and RSHE lessons across all year groups. We hope that once the new curriculum is announced for 2028, there will be much greater scope to add in more content.



Barriers

The timing of the research project presented barriers, starting in October 2025, as many schools teach the computer systems and networks units in the first half term. As a result, some lessons were added in later in the year as one-off events. One year is also a short space of time to measure any impact on learners. As mentioned above, the curriculum is very crowded and there is little room to introduce new content – in some schools, only one of the lessons was taught.

Teacher confidence was a barrier to effective delivery, and the teacher guides were an attempt to mitigate this. Staff attitudes towards AI were also a possible barrier, with many teachers citing the negative aspects of the technology. However, as one project lead put it,

> *"One concern is that it could be seen to promote the children's use of AI. This fear is becoming quickly outdated as more people realise that it's here to stay and children need a safe and structured approach to learning about it."*
>
> *AI Project Lead*

Finally, a barrier to effective AI literacy education is the lack of age-appropriate tools to teach about generative AI in a safe and responsible way and the desire not to encourage use of tools that may present a safeguarding risk.

Implications & Discussion

1. Children have naïve mental models about what AI is, which may affect their understanding of and attitude towards the technology.

It was apparent from the pupil voice activity that children don't have a clear understanding of what artificial intelligence actually is and how it can be used in the wider world. Pupils' misconceptions about AI being associated with robots may mean that they are less aware of the everyday tools and devices it is built into, and may assign more human-like qualities to the technology. Children were sometimes surprised by what they learnt:

> *"[Pupils] learned that AI is not a robot or a small person sitting behind a computer answering questions, which many had previously believed. The children were often surprised by this and were interested to discover how AI can learn from data, recognise patterns, and generate responses and images. By the end of the unit, pupils were able to identify examples of AI in everyday life and had developed a more accurate understanding of its uses and limitations.*
>
> *AI Project Lead*

The number of pupils that associated AI with robots did reduce after lessons, but not fully, indicating that more work needs to be done to counter these mental models by providing alternative concrete images of what AI looks like and the devices where it can be used. Content around what AI is and looks like has been added or improved in all year groups in the latest versions of the lessons.

Incorporating AI across the curriculum, and not just within computing is also important to ensure pupils recognise the impact on all areas of life. This also provides the opportunity to revisit key concepts which will help with retention (see also point 8).

2. Pupils are aware of some of the risks of using AI - structured AI lessons build on this awareness and can influence behaviour.

Although children did have a basic knowledge of some of the risks of the technology, this was limited and appeared to depend in part on what they had heard from parents, other family members or the media. There was a striking difference between concerns voiced between the two schools, where the intake is very different in terms of ethnicity and socio-economic profile: one where environmental concerns were more commonly raised, and the other where pupils talked more about cognitive offloading and effect on jobs and personal effectiveness. The sample size was very small, so these differences are not statistically meaningful – however there is an interesting research question that may be asked around parental, community and cultural influence on pupil attitudes.

Following delivery of the lessons, there was much greater awareness that the outputs can be wrong, and that AI can be used to create fake materials. There were a number of instances where children chose more responsible behaviour with AI following the input – one year 4 pupil said,

"I use ChatGPT but now I ask a parent first – I know after the lesson."

Year 4 Pupil

In another school, the AI project lead reported,

"A number of pupils also talked about using the Google AI summary that appears at the top of search results. Interestingly, some children now choose not to use this feature after learning about AI's limitations and inconsistencies. They explained that they prefer to check multiple websites themselves to compare information, showing a growing sense of digital literacy and critical thinking."

AI Project Lead

The discussion element of the lessons was useful to allow children to explore different opinions without judgment and be supported to make more responsible decisions:

"It was really good to actually give the children that open space to talk about [AI] and not feel shy if they do use it or not. Having those open discussions felt like it was making a big impact, especially […] that they've not got those role models as such at home and I could be there to actually guide them to being a bit more safe."

AI Project Lead

Pupils have nuanced attitudes towards AI, many holding both positive and negative views of the technology. They recognise how useful it is, but also the potential risks, which is reassuring. When asked about the impact of the lessons on the children, one AI project lead said,

"They're definitely more aware of it. I think it's generated excitement, but it's also generated caution."

AI Project Lead

3. Pupils are using generative AI tools from an early age, often without adult supervision – education is required for both pupils and parents to keep children safe.

The project demonstrates that pupil use of generative AI tools is widespread and increasing, even among younger pupils. AI is now built into a large number of tools that young people can access freely, fuelling this growth in use. It is essential that any AI literacy education

starts early to build up digital resilience. It also indicates the need for clear information and guidance for parents – most pupils were accessing AI tools using parental devices and with permission. Until parents are fully aware of the risks, pupils will continue to use AI tools unsupervised that carry potential safeguarding dangers. We are aware of the barriers to effective parental engagement in schools, and it may be that awareness of risks could be taught alongside practical strategies for using AI in order to engage more families in school-led information sessions.

4. Pupils really enjoy learning about AI and want to find out more.

Almost all of the pupils interviewed enjoyed the lessons, and many of the project leads reported the same of their learners. There is an aspect of the novel to this, but there is also an interest and investment in a technology that will have an impact on children's future careers and everyday life. AI lessons can be creative, engaging and meaningful for learners, whilst also providing opportunities for further exploration of the subject.

> *"A lot of the teachers, and that was the main thing they reported back to me - they were basically, we had a fantastic discussion about AI."*
>
> *AI Project Lead*

5. Teacher confidence and knowledge is a barrier to effective teaching.

Many teachers are now using generative AI to support their role (around 76% nationally as of February 2026),[30] but staff in this study often reported that they don't feel confident in talking to pupils about the technology. Even where teachers rated themselves as fairly confident, their knowledge of key terms such as machine learning was lacking, or they weren't sure how to talk about AI in an age-appropriate way:

> *I have some awareness of and use it myself for certain things but don't fully understand it and how you would explain it to young children in a way that they would understand.*
>
> *Primary School Teacher*

The Technological Pedagogical Content Knowledge framework (TPACK) can be used to describe the knowledge teachers need to teach AI literacy, comprising the technical knowledge to use AI educational tools, the pedagogical knowledge of how to teach about the subject, and the content knowledge of how AI works, its risks and benefits. A study from Yim and Wegerif in 2024 found that "teachers possessed insufficient technological knowledge (i.e. TCK) as well as CK [content knowledge] regarding AI literacy."[31] Any

[30] National Education Union. (2026). State of education: AI.

[31] Yim, I.H.Y., Wegerif, R. (2024). Teachers' perceptions, attitudes, and acceptance of artificial intelligence (AI) educational learning tools: An exploratory study on AI literacy for young students.

professional development needs to address both of these areas, plus ensure that teachers are familiar with effective approaches to teach about AI effectively (i.e. PK).

The comprehensive lessons materials and teacher video guides proved useful in increasing confidence and understanding in this study, but continued training will be required to keep content knowledge up to date.

6. Teacher attitudes and concerns may also affect the willingness to teach about AI.

A number of teachers across the project expressed concerns about the effect of AI on young people – both as potential victims of misuse and developing an over-reliance on the technology. For some staff, this meant they had reservations about the appropriateness of teaching about AI to their learners:

> *Some teachers, particularly in upper Key Stage 2, expressed reservations about teaching the topic. These concerns were linked to negative perceptions of AI, questions around whether it is appropriate for primary-aged children to learn about, and wider discussions regarding its ethical implications and environmental impact.*
>
> *AI Project Lead*

These concerns need to be addressed by professional development before effective teaching can take place.

7. There is a tension between teaching pupils how to use AI effectively and responsibly and not driving them towards using tools that are not age appropriate.

Relating to point 6, there is a concern that teaching about generative AI could encourage pupils to use tools that are not appropriate for primary-age children. The AI Literacy Framework from the OECD recommends pupils develop competences within four domains, including Create with AI, that assumes use of AI tools. [32] We consider this problematic for young learners who don't have the critical awareness of the risks, as there is an absence of suitable tools for pupils to work with. Some companies are now reducing the age limit on tools - for example, Google has made Gemini available to pupils of all ages with an education account from September 2026. This removes the age limitation, but not the moral question about whether children should be using AI chatbots that can provide misinformation, reinforce stereotypes and at times show aspects of sycophancy that may lead to poor decision making, [33] all without effective oversight and monitoring.

The materials used in this project can be taught without modelling generative AI chatbots or direct use by children. However, there is a counter-argument that pupils cannot become

[32] OECD / European Union. (2026). Empowering learners for the age of AI: An AI literacy framework for primary and secondary education

[33] Figueroa, C. et al. (2026). Young People's AI Use for Social and Emotional Purposes: A youth-led overview of harms and benefits.

safe and responsible users without exposure to the technology in a secure and managed environment. For example, older pupils could be introduced to tools through teachers modelling specific tasks as part of a wider lesson on AI. What is clear is that no generative AI tools should be used with or by young people without explicitly addressing the risks that they pose.

8. AI Literacy should be taught across the curriculum to ensure retention of the key messages.

The computing curriculum is a natural place to teach the fundamentals of how AI works, but currently there isn't a great deal of time to fit in any new content. Repeated exposure to key messages about the risks of AI and the technical vocabulary is needed to ensure children can retain the knowledge. This can be done by revisiting activities and discussions in other areas of the curriculum, particularly the RSHE curriculum, where online safety issues are addressed. There is also scope for recapping key messages in other subjects, for example:

- Investigating what it means to be creative in music, art and English,

- Exploring where AI (in particular machine learning) can help us. For example to translate languages, to analyse data to help with conservation (geography), or to analyse movement and prevent injuries in sports people (PE).

- Learning more about the environmental impact in science.

Finally, some work may be required to convince pupils of the importance of formal education in an AI-saturated world. As one year 2 pupil put it, 'why do we have to go to school if there is AI?' Exploring the limitations of what the technology can do and highlighting the human element in teaching, learning and creativity will help to answer such questions.

Recommendations

These recommendations are for schools and trusts, but also directed toward policy makers and organisations that support schools or design materials to teach about AI.

1. Schools should consider governance and policy before teaching about AI.

In order for teachers to deliver lessons effectively, they need to be aware of their school or trust's position on the use of generative AI tools in lessons, by both staff and pupils.

We recommend that:

- ❑ Schools and trusts have a robust AI policy in place or in development prior to teaching about AI, to ensure any risks have been considered and mitigated.
- ❑ Pupils are made aware of what acceptable use of AI looks like in their school.
- ❑ Teachers are clear on what tools they can and cannot use with pupils in lessons.

2. AI literacy should be taught across the primary phase from key stage 1, starting as soon as possible.

Young pupils are already using AI without the foundational knowledge of what it is and the risks associated with the technology. Even a basic input at this point is better than no input.

We recommend that:

- ❑ All pupils from year 2 are taught the basics of what artificial intelligence is and associated risks at an age-appropriate level.
- ❑ Pupils in upper key stage 2 complete a full unit on AI literacy as their use and exposure increases.
- ❑ Teachers talk to children in year 1 and the early years foundation stage about AI where relevant and reinforce positive behaviours around the use of technology.

3. AI Literacy lessons should include content on the fundamentals of how AI works, as well as its benefits and risks.

A well-rounded AI literacy curriculum will include all three dimensions – the technological, the practical and the human.[34] Learning about the risks and ethical issues of AI is paramount for pupils to remain safe and responsible users of the technology. At the same time, without understanding the fundamentals of how it works, this aspect will be superficial. Finally, pupils need to recognise the benefits of the technology, not just the risks, in order to make informed decisions about their own use in the future, in everyday life as well as in future careers.

We recommend that:

[34] Council of Europe. (2025). Discussion paper on Draft Recommendation on AI literacy

- ❑ Pupils learn the fundamentals of AI, including machine learning, generative AI and the role of data in training models.
- ❑ All pupils are taught about the risks of AI as an integral part of any AI literacy lesson, and revisited whenever generative AI tools are used.
- ❑ Older pupils have the opportunity to discuss the ethical issues around the use of AI in a safe space.
- ❑ Lessons inform pupils of real-world uses and benefits of the technology.
- ❑ Teachers and support staff avoid anthropomorphising the technology in language and imagery.

4. AI shouldn't just be taught in computing

The computing curriculum is an obvious place to teach about artificial intelligence, particularly the fundamentals of how it works. However, AI literacy should be considered a whole-school issue and taught across the curriculum to develop media literacy skills, critical evaluation of the technology and provide learners with an awareness of the impact of AI on all aspects of society.

We recommend that:

- ❑ Schools teach the fundamentals of AI as part of the computing curriculum, alongside the risks and benefits.
- ❑ Risks and ethical concerns are also addressed within the Relationships, Sex & Health Education lessons to allow for revisiting of key messages and greater discussion around sensitive topics.
- ❑ AI is also addressed within specific curriculum areas for children to explore the wider impacts on society.

5. We need to consider the role of equity in AI literacy

Do all young people have the same experience of AI? To what extent is bias and equity addressed in lesson materials? Does the lack of confidence and subject knowledge of individual teachers impact on access to AI literacy?

We recommend that:

- ❑ AI literacy is treated as an entitlement for all children.
- ❑ Bias is taught as an explicit part of AI literacy.
- ❑ Schools consider the individual experiences that may impact children's attitudes towards and their access to AI.
- ❑ Schools and organisations support teachers to deliver effective AI literacy education.

6. Provide comprehensive support to teachers to deliver AI literacy lessons

Teacher confidence and lack of subject knowledge are barriers to effective AI literacy education. Teachers require access to effective professional development and comprehensive teaching materials to ensure that misconceptions are not perpetuated and discussions can be conducted from an informed position.

We recommend that:

- ❑ Professional development is timely and ongoing to reflect the fast-changing pace of development in AI.
- ❑ Teachers are supported to understand the age-appropriate terminology and the fundamentals of how AI works.
- ❑ Teacher concerns about the risks of AI are addressed, and any tools used are appropriate to the age of the children.
- ❑ Any teaching materials are suitable for delivery by non-specialists, with clear explanation of key concepts and supporting reference materials.

7. Engagement with parents about AI will help keep children safe

A number of pupils are using generative AI with the permission of parents and on parental devices, however not all parents are aware of the risks associated with these tools.

In an ideal world, schools, trusts and organisations could:

- ❑ Provide accessible parental guidance as to the safe and acceptable use of AI tools for children.
- ❑ Deliver information sessions to encourage positive uses of AI tools whilst addressing the risks.
- ❑ Be transparent in their own uses of AI.

Next Steps

Participants in the research project agreed overwhelmingly that one of the highlights had been the opportunity to learn from and share ideas with colleagues across the city. The group will continue to meet via an existing AI working group to maintain these connections. The majority of participants also plan to continue their research within their own settings, and will hopefully contribute further data to next year's report. The lead researcher also intends on repeating the pupil voice interviews in the two schools during the academic year 2026-27 in order to provide more longitudinal data on the impact on learners.

Learn Sheffield has already recruited 5 schools for the next year of the research project, and more rigorous data collection methods are planned in order to ensure data can be compared across all settings and year groups.

Conclusion

This project demonstrates that primary-aged children are already living in a world shaped by artificial intelligence. Many pupils are using AI-enabled tools, interacting with AI-generated content and, increasingly, accessing generative AI systems directly. However, they often do so without a clear understanding of how these technologies work, their limitations or the risks they may present.

The findings from eight Sheffield primary schools suggest that even a short sequence of carefully designed lessons can have a positive impact on pupils' understanding of artificial intelligence. Children developed more accurate conceptions of AI, showed greater awareness of misinformation and unreliable outputs, and demonstrated growing levels of critical engagement with the technology. Importantly, pupils remained enthusiastic about learning more, indicating that AI literacy is both relevant and motivating for young learners.

The project also highlights the importance of teacher knowledge and confidence. While staff recognised the significance of AI literacy, many initially lacked the subject knowledge needed to teach the topic confidently. Additionally, concerns about the technology affected teachers' willingness to deliver lessons to pupils. High-quality teaching resources, professional dialogue and ongoing support were central to successful delivery of lessons and must remain a priority as AI literacy develops within schools.

Perhaps the most significant finding is the growing disconnect between children's access to AI technologies and the education they receive about them. As AI becomes increasingly embedded within everyday products and services, schools cannot rely solely on restriction or avoidance. Instead, they must equip pupils with the understanding, critical thinking and ethical awareness needed to navigate an AI-enabled world safely and responsibly.

Although this study is limited in scale, it provides encouraging evidence that primary AI literacy education is both feasible and beneficial. The challenge now is to move from isolated examples of practice towards a coherent national approach that supports schools, teachers, pupils and families. AI literacy should not be viewed as preparation for a future technology. It is education for a present reality, and schools have a vital role to play in ensuring that all children are prepared to participate confidently, critically and safely in a world increasingly shaped by artificial intelligence.

Across all year groups, the lessons sparked curiosity, critical thinking and a desire to learn more about how AI shapes the world around them.

AI Project Lead

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Appendix

Additional Learning Materials

To access the AI Lessons, please email cdicentre@learnsheffield.co.uk.

Learning Outcomes

These learning outcomes underpin the AI lessons. They are free to use with attribution, according to an Attribution-NonCommercial 4.0 International Creative Commons Licence.

Key Stage 1	Learning Outcomes

Pupils will be able to:

- ❑ Explain that humans control computers by giving them instructions
- ❑ Recognise that Artificial Intelligence is something that works on computers
- ❑ Recognise limited examples of AI in everyday technology (e.g. voice assistants, recommendation systems, smart toys, translation tools)
- ❑ Recognise that some people you talk to on the computer aren't real
- ❑ Identify who to ask for help when using technology
- ❑ Recognise that some digital images or videos aren't real
- ❑ Recognise that we need to keep some information private when using a computer, including AI
- ❑ Explain that AI isn't alive, and it doesn't have feelings like humans
- ❑ Recognise that Artificial Intelligence is a kind of computer program that is trained to do difficult tasks like a human can
- ❑ Recognise that AI can make mistakes

Lower Key Stage 2	Learning Outcomes

Pupils will be able to:

- ❑ Explain that Artificial Intelligence is a kind of computer program that is trained to do complicated tasks like a human can
- ❑ Give examples of artificial intelligence in everyday devices and applications
- ❑ Recognise that Machine Learning is a type of artificial intelligence where we train a computer using data to be able to do a task e.g. recognise images
- ❑ Recognise that the amount and quality of the data an AI model is trained on is important
- ❑ Explain that AI isn't alive, and it doesn't have feelings or understand like humans
- ❑ Explain that AI tools can make mistakes
- ❑ Recognise that Generative AI is a form of AI that creates new text, images, audio and video
- ❑ Compare what humans can do well with what computers can do well
- ❑ Explain that some digital content might not be real or true
- ❑ Identify reasons why people might create content using AI, e.g. images
- ❑ Recognise that AI tools should be used safely and respectfully, e.g. around personal information, being kind, and where to go for help

	Upper Key Stage 2	Learning Outcomes

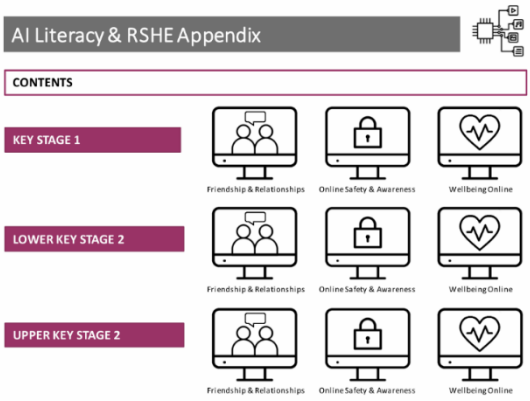
Pupils will be able to:

- ❑ Explain that Artificial Intelligence is a computer system that simulates human intelligence and can improve with experience
- ❑ Recognise the difference between Machine Learning and Generative AI
- ❑ Recognise that Large Language Models and Image Generators analyse patterns in training data in order to generate new text and images
- ❑ Recognise the benefits of AI technology and examples of how it is used in the wider world
- ❑ Identify that the quantity and quality of training data affects the performance, accuracy and bias of an AI model
- ❑ Explain the possible risks and ethical issues around using AI, including environmental impact, bias, disinformation, cognitive offloading, bullying, social companions and effect on jobs
- ❑ Evaluate whether AI-generated content is accurate and reliable
- ❑ Explain what is acceptable and unacceptable behaviour when using AI systems and how to report concerns
- ❑ Write effective prompts to create content using an age-appropriate AI tool*

**Depending on your school policy around pupils using AI tools*

RSHE & AI Literacy appendix

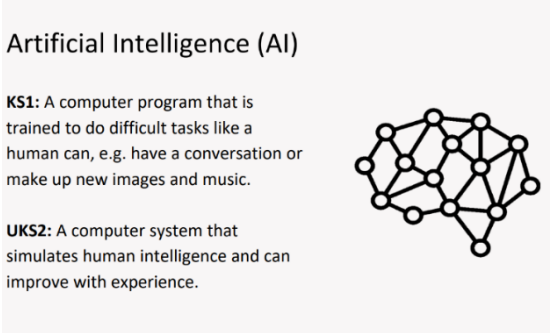
The RSHE & AI Literacy appendix can be downloaded from the Computing & Digital Innovation Centre Resources page on the Learn Sheffield Website.



AI Glossary

The **AI Glossary** with image-support can be viewed and downloaded here:

Sheffield eLearning Service AI resources



Kopemon Activity

This is an unplugged activity that can be used in upper key stage 2 to teach about machine learning and bias. You can download it here:

Sheffield eLearning Service AI resources



Name	Thornix
Type	Grass

Case Studies

Arbourthorne Primary School

Carfield Primary School

Ecclesall Primary School

Greystone Primary School

Nook Lane Junior School

Oughtibridge Primary School

Owler Brook Primary School

Pye Bank CE Primary School

TAI Case Study – Arbourthorne Primary School

In the academic year 2025-2026, I participated in a research project on teaching AI in Primary schools. I conducted the lessons at Arbourthorne Community Primary; a two-form entry local authority primary school with 68% pupil premium and 45% SEND.

The school's current policy toward AI is outlined in our GDPR policy as well as our acceptable policy (a policy that was sent out to parents at the beginning of the academic year to underline acceptable use of social media).

I taught the lessons to Year 2, Year 4 and Year 5 after gathering data using the pre-lesson survey. I accessed the video guides and found these very supportive in that they helped me define complex concepts to the children. The majority of learners accessed the lessons; however, some definitions on the slides were hard for oral rehearsal for SEND learners.

Prior to the project, colleagues shared they were confident using it to support with their own workload; however, deconstructing it and teaching the technicalities to children was something they were less familiar with. I delivered the lessons with the class teachers present. Class teachers shared afterward that they had new information e.g. data centres, the difference between machine learning and generative AI.

In my own experience, some of the lessons were very content heavy so had to be chunked into smaller lessons so that the content was more accessible. I struggled with making a very abstract concept more concrete, especially for SEND learners and would appreciate more ways to do that. The varied representation of machine learning through google draw, the butterfly picture activity, the Kopemon activity and the AI for oceans activity supported the visualisation of this concept.

In terms of pupil perspectives, pupils thoroughly enjoyed the lessons and engaged well. This could be attributed to the novelty of AI. The children enjoyed the interactive activities. Prior to the lessons, many children anthropomorphised AI, but some children in Year 5 recognised the human input with one child humorously saying "it isn't going to take over the world until you program it to" and another demonstrating an awareness of its fallibility "I know that it can get anything from the internet and sometimes it can mess up like chatgpt."

All the children in Year 5 had heard of AI but only a few more than half were aware that it meant artificial intelligence. Some children in Year 2 Children demonstrated an awareness of its role in Google, Alexa and Siri. These children were able to see an AI generated image and identify that it was AI.

There was a combination of negative and positive opinion of AI. Children recognised its positive uses to support diagnoses and reflected on that. Children recognised its impact on Art, and taking work away from real artists (discussions on the comparison between real and AI art in a competition). The use of it in homework was mixed. Opened discussions for how AI was used, whether it was used to support a person's own work or completely supplant their own work. Discussions with Year 5 children demonstrated that they had been using AI at home and some referenced an AI app they use to support their homework.

Whilst Year 2 students struggled to access the written definition of AI, they demonstrated they were aware that an AI was a system of computers and understood the pattern detecting element of the concept.

To build on the work done this year, I would really appreciate a comprehensive unit on AI to teach to the Year 5 children as I noticed this was the Year group that was most engaged and had a more in-depth discourse on the subject. Additionally, I would be interested hosting a workshop at school to support parent's understanding of AI so that they can support their children at home. Furthermore, I plan to look into ways to embed the teaching of AI from a digital literacy perspective into the PSHE curriculum for KS2.

TAI Case Study – Carfield Primary School

1. School details

We have 543 children on roll, nursery to Year 6.

- 107 EAL
- 139 Pupil Premium
- 101 SEN children

2. Policy

We have an acceptable use policy for children, parents and staff. The AI policy is currently being written and will be ratified by governors over the summer. Staff have been made aware that live AI tools should not be used in the presence of children, no individual or collective data relating to children, staff or parents at school should be entered in AI. Photographs / images of children and staff must not be used in AI. For teaching purposes, teachers must pre-prepare any resources or examples created using AI to ensure they are appropriate and safe to share with children.

3. AI Lessons – teacher perspectives

Class teachers taught the lessons to each class / year group. We also have a Computing Curriculum Lead who has supported and taught lessons if covering class teachers. Teachers accessed the video guides and many commented that this gave them clarity around the subject matter and also addressed their own misconceptions. Teachers' confidence was low (generally) around how to use AI and around subject knowledge (what AI is, how it's created, risks and benefits).

4. AI Lessons – pupil perspectives

Children enjoyed the lessons. The most well-received lesson was the Kopemon lesson – this really helped children to understand the concept. Children's understanding prior to the project was that AI was mostly around making 'fake' pictures and videos. Children didn't understand (generally) everyday uses of AI. Several children said they had never used AI, despite using Alexa, Netflix recommendations and chat bots etc. Children now have a better understanding and a concept of AI, understanding that it is 'everywhere' in most areas of their life.

5. Pupil use of AI

Children reported that they used AI in the following forms:

- Alexa Creating 'funny' pictures'
- Companion toys (KS1)
- Google search AI mode
- Advice (friendship mostly)

Children do not report using AI as frequently as they did at the beginning of the year.

6. Barriers

Retention and retrieval – children didn't seem to be able to confidently recall most of the information from their lessons. They enjoyed the tasks but because there was a gap between the lessons, while children completed their regular (Teach Computing) lessons, they weren't able to retrieve or remember key information. Time was also a barrier as the curriculum is very restrictive in terms of time. Teacher subject knowledge has improved throughout the year but is definitely still a barrier and means that teachers may need to research the answer to any questions children may have (the ever-evolving nature of AI means that even Computing subject specialists can't know everything).

7. Impact

The project has been an excellent way for us to begin our AI journey at Carfield. There is so much more for us to learn and to teach the children. We hope that the curriculum review in 2027 will bring some changes to the computing curriculum which reflect the impact of AI on the world and our children. The impact of the project is that it has raised awareness and understanding in children and staff, but we still have a long way to go!

8. Next steps

Our next steps are to continue to develop the lesson on AI and when the curriculum review is released, consider how we can implement those changes, alongside what we are learning from the project. We hope to develop a computing curriculum that addresses AI without the need for discrete / separate lessons and instead we can incorporate it into all elements of computing teaching (as it seems to impact all elements of computing teaching now).

TAI Case Study – Ecclesall Primary School

1. School details

Ecclesall Primary School is a large, three-form-entry school within Peak Edge Academy Trust, with approximately 630 pupils from a diverse and vibrant community. Our demographic profile includes 49 SEND pupils, 139 EAL learners, 29 pupils eligible for Pupil Premium, and 165 pupils from Black and Minority Ethnic backgrounds.

2. Policy

Ecclesall Primary School has a fully adopted Artificial Intelligence (AI) Policy (2025–26), approved by the Governing Body in June 2025. The school's approach is aligned with national guidance and emphasises safe, responsible and educationally purposeful use of AI.

Use of AI by Pupils

- Pupils may explore age-appropriate AI tools in a supervised classroom environment.
- AI education is embedded to help pupils understand capabilities, limitations, bias, privacy and ethical implications.
- Pupils are taught not to enter personal or sensitive data into generative AI tools.

3. AI Lessons – teacher perspectives

The AI lessons were delivered by a combination of the Computing Lead and class teachers. In Year 2, the Computing Lead taught the lessons to one class because the class teacher did not yet feel confident delivering the content. The Computing Lead also taught the lessons to Year 4, using the video guides to secure subject knowledge and ensure they could confidently answer pupils' questions. Upper Key Stage 2 teachers have watched the video guides in preparation for teaching the lessons later in the year, and reported that these were "immensely helpful for their own knowledge and pedagogy."

Across the school, teachers found the video guides extremely supportive. Several staff commented that they helped them understand key concepts clearly and gave them confidence to teach the lessons accurately. This aligns with survey responses showing that teachers who used external resources (Sheffield lessons or Safer Internet Day materials) generally felt "a bit more confident" or "a lot more confident" afterwards.

The level of the lessons was appropriate for both Year 2 and Year 4.

- Year 2: Pupils were able to understand the core ideas and began to grasp how Google Quick Draw worked. This proved to be an excellent introduction to machine learning, though teachers noted that regular recapping would be needed for full embedding.
- Year 4: Pupils had more prior knowledge and the lessons built effectively on what they already understood.

Teacher confidence before the project was generally low. Survey data shows a wide spread of confidence ratings, with many teachers scoring themselves 2 or 3 out of 5, often explaining that they "want more expertise before teaching" or "think there may be much more I'm unaware of." Confidence was lowest in EYFS and KS1 (average 2.33 and 3.86), and highest in Upper KS2 (average 3.9), where teachers were more familiar with terms like "AI" and "chatbot."

Many teachers reported using AI personally but not understanding how it worked, which contributed to nervousness about teaching it. One teacher noted: “I don’t really use AI myself so am less confident teaching how to use AI in a safe, responsible way.”

Confidence improved noticeably after teaching the lessons or engaging with the resources. Survey data shows that among teachers who taught AI lessons this year:

- 5 teachers felt “a lot more confident”
- 7 teachers felt “a bit more confident”
- Only 2 teachers felt “about the same”

Staff discussions increased significantly, with teachers sharing knowledge, clarifying misconceptions and supporting each other’s understanding. Teachers who regularly use AI themselves reported feeling more secure, while others gained confidence through the structured lesson materials and video guides.

Overall, the project has led to a clear uplift in teacher confidence, stronger subject knowledge, and greater readiness to teach AI concepts across the school.

4. AI Lessons – pupil perspectives

Pupils across the school responded extremely positively to the AI lessons. Children described the sessions as fun, exciting and surprising, particularly when they realised that everyday tools they already use – such as Alexa, Siri and Google – rely on artificial intelligence. This sense of discovery helped build immediate engagement and curiosity.

The interactive elements of the lessons were consistently the most popular.

- Year 2 pupils loved Google Quick Draw and were fascinated by how the model learned from their drawings.
- Year 4 pupils particularly enjoyed the “sorting fish from rubbish” activity, which helped them understand how machine learning models classify data.
- A small group of Year 5 pupils had an early look at the Kopemon lesson and were enthusiastic about creating and sorting their own creatures, quickly grasping how training data affects outcomes.

These activities significantly enriched pupils’ vocabulary and conceptual understanding. Many children began using terms like machine learning, training data, patterns and generative AI with increasing confidence.

The more formal “teaching” sections of the lessons were sometimes challenging, especially for Lower Key Stage 2, as some concepts are complex. However, with careful scaffolding, slowing the pace and revisiting key ideas, pupils were able to understand and apply the content. Regular recapping was particularly helpful for younger learners.

Before the lessons, most pupils thought AI was mainly about chatbots or “making made-up pictures.” After the lessons, pupils demonstrated a much clearer understanding of the difference between machine learning and generative AI, and were able to explain how each works and how they should be used safely. Many pupils also showed thoughtful awareness of wider issues such as bias, misinformation and responsible use.

Overall, pupil attitudes towards AI were strongly positive. They were impressed by how quickly AI can process information and liked that it can explain things in different ways depending on the user's needs. A small number of pupils expressed more mixed feelings after discussing the environmental impact of AI, particularly the high energy usage associated with large models. This led to thoughtful conversations about balancing innovation with sustainability.

Across all year groups, the lessons sparked curiosity, critical thinking and a desire to learn more about how AI shapes the world around them.

5. Pupil use of AI

Pupils at Ecclesall Primary School use AI at home in a fairly typical, everyday way. The most common examples they shared were voice-activated assistants such as Alexa, Siri and Google Assistant, which many children recognised as part of their daily routines. Several pupils mentioned that their parents use ChatGPT regularly for work, and some have been allowed to try it themselves, often using it to generate funny pictures or playful responses.

A number of pupils also talked about using the Google AI summary that appears at the top of search results. Interestingly, some children now choose not to use this feature after learning about AI's limitations and inconsistencies. They explained that they prefer to check multiple websites themselves to compare information, showing a growing sense of digital literacy and critical thinking.

Since teaching the AI lessons, there has been noticeably less casual conversation among pupils about ChatGPT or other AI tools. It is unclear whether this means they are using AI less at home, or whether AI has simply become more embedded and less novel in their everyday lives. However, the reduced "buzz" suggests that pupils may now be approaching AI more thoughtfully rather than treating it as a trend or curiosity.

To date, there have been no incidents involving AI reported in school. Pupils appear to be using AI safely and appropriately, and the lessons have helped them develop a more balanced understanding of both the benefits and risks associated with AI use.

6. Barriers

The main barrier this year was curriculum time. Teachers found it challenging to identify where the AI lessons should sit within the existing computing curriculum without disrupting the established sequence of learning. As the year progressed, this improved: staff began exploring how to integrate the lessons more flexibly, and planning for 2026/27 is now more secure. Work is also underway with the PSHE/RSE lead to explore potential overlap, particularly around online safety, digital citizenship and responsible use of technology, which may create additional curriculum space for AI teaching in future.

Teacher confidence was another significant barrier. Several staff explained that they "want more expertise before teaching" or "think there may be much more I'm unaware of." This reflects a broader pattern: some teachers use AI regularly and therefore have a working understanding of its capabilities, while others choose not to engage with AI at all, making it more challenging to bring them on board with teaching the lessons. Limited subject knowledge meant some staff were hesitant to deliver content independently.

To address this, the Computing Lead stepped in to model lessons, team-teach, and provide targeted CPD on AI concepts and pedagogy. This support helped build confidence, but it also highlighted the

need for ongoing professional development to ensure all staff feel secure teaching AI content. As confidence grows and curriculum placement becomes clearer, these barriers are expected to lessen in the coming year.

7. Impact

The AI lessons have had a significant and positive impact on both pupils and staff at Ecclesall Primary School. For pupils, the lessons sparked curiosity, excitement and a deeper understanding of how AI shapes the world around them. Children demonstrated clear progress in their ability to explain key concepts such as machine learning, training data and generative AI, and many began using this vocabulary confidently in discussion. Their ability to distinguish between different types of AI, evaluate the reliability of AI outputs and consider issues such as bias and environmental impact shows a meaningful shift towards critical digital literacy.

The lessons also strengthened pupils' attitudes towards safe and responsible use of technology. Several pupils reported choosing not to rely on AI summaries in Google searches after learning about inaccuracies, instead preferring to check multiple sources. This indicates growing independence and discernment in how they navigate online information.

For staff, the impact has been equally notable. Teacher confidence increased across the school, supported by high-quality video guides, shared professional dialogue and targeted modelling from the Computing Lead.

The project has also strengthened whole-school pedagogy. Staff are now more comfortable discussing AI with pupils, more aware of the risks and opportunities associated with emerging technologies, and more confident embedding AI concepts within computing and wider curriculum areas. The lessons prompted rich professional conversations, helping staff clarify misconceptions, share strategies and build a more cohesive understanding of how to teach AI safely and effectively.

Overall, the impact of the AI lessons has been highly positive. Pupils are more informed, more critical and more enthusiastic about AI, while staff have developed stronger subject knowledge, greater confidence and a clearer sense of how AI fits within the school's digital strategy. The project has laid a strong foundation for further development in 2026/27.

8. Next steps

Building on the strong foundations established this year, Ecclesall Primary School has clear next steps to further embed AI education across the curriculum. The first priority is to finalise where AI lessons sit within the computing curriculum so they complement, rather than disrupt, existing units. Planning for 2026/27 is already more secure, with teachers feeling increasingly confident about how and when to deliver the lessons. The Computing Lead will continue refining the progression of AI concepts from Year 2 to Year 6, ensuring pupils revisit and deepen their understanding through regular recapping and age-appropriate activities.

A second key focus is strengthening cross-curricular links. Work is underway with the PSHE/RSE lead to explore how elements of AI education—such as online safety, digital citizenship, misinformation, bias and responsible use—can be woven into PSHE lessons. This has the potential to create additional curriculum space and reinforce key messages in a context that pupils already associate with safety and wellbeing.

Staff development will remain central. Although confidence has improved, survey data shows that teachers' familiarity with AI terminology still varies widely, with some staff rating their understanding as "never heard of it" for terms like machine learning or large language model. Next year will include further CPD, including hands-on demonstrations, modelling of lessons, and opportunities for staff to practise using AI tools safely within the school's approved environment. The aim is to ensure all teachers feel secure teaching AI concepts, regardless of their personal use of AI outside school.

Finally, the school will continue working closely with Peak Edge Academy Trust as the trust-wide AI policy is developed. This will help ensure consistency, shared expertise and a unified approach to safeguarding, data protection and responsible use of AI across all schools in the trust.

TAI Case Study – Greystones Primary School

1. School details

Capacity: 630
NOR: 619
Age: 4 to 11
Pupils Eligible for FSM: 7.6%

2. Policy

As a trust, we have drafted a new AI policy. It has not yet come into effect.

3. AI Lessons – teacher perspectives

At Greystones Primary, the initial AI lessons were taught by the computing lead in Y2. A whole-school assembly on AI was also delivered as part of eSafety Week. Following this initial delivery a staff meeting was held to inform teachers about the other lessons that were to be delivered and how to access the resources including the teaching videos (which most staff made use of). Teachers reported that the level of content was good and the lessons facilitated excellent class discussions.

Prior to the project, teacher confidence was mixed. Some teachers reported that they were actively using AI to assist with their daily duties, whilst others had not actually used any AI based computing. Confidence was greatly improved by the staff meeting and teachers were happy to deliver the lessons. Since delivering the lessons, teacher confidence has further improved, and a recent request form the school management to use and AI tool to generate this year's school reports was met with a reasonable air of confidence – I feel this was improved by the project.

4. AI Lessons – pupil perspectives

Pupils really enjoyed the lessons, with many teachers reporting that they facilitated very interesting class discussions and children were keen to share their knowledge of AI and find out more about it. The children really enjoyed any opportunity to interact with AI online – e.g. the Google Quick Draw program. They also really enjoyed the Kopemon activity.

Prior to the lessons, most children had an awareness of AI and seemed to think it was a word to use to describe if something was 'fake'. They were not as aware that it was embedded in so many of the devices they were familiar with e.g. Alexa.

Following the lessons, children gave varied responses when asked if they thought AI was a good or bad thing:

Bad	26%	Good	20%
Both	24%	Not sure	29%

They cited various reasons for their answers – see below for a summary of responses.

Reason	**Number of pupils**
It's helpful	21
It's addictive	3
You can do bad things with it	8
It isn't always right 6	6
People can use it for scams	5
It can go wrong	1
It's bad for the environment	3
It can make you lazy	3

Some direct quotes include:

'Because you can use it to help with your homework and has unlimited answers.'

'Because you can make videos and search for stuff'

'It assists humans in tasks we cannot achieve.'

Some parents have clearly talked to their children about the negative side of AI and children were wary of it.

The pupils very much enjoyed the lessons. It is a term that a lot of them have heard and it felt very relevant to them. The activities were very engaging too. Children loved the Google Quick Draw lesson and the Kopemon activity. Some struggled to visualise what AI is but they generally got the idea.

5. Pupil use of AI

There is evidence to suggest that most children still have limited access to AI. However, some have reported using it for research purposes. Lots of children refer to AI being a feature of smart speakers like Alexa.

We have not really had any incidents to speak of, but some parents have contacted the school concerned about the fact that teachers had discussed it in school. This was prior to the lesson delivery.

6. Barriers

One concern is that it could be seen to promote the children's use of AI. This fear is becoming quickly outdated as more people realise that it's here to stay and children need a safe and structured approach to learning about it.

Some children still see it as a danger. With one child saying, "Why would anyone create anything so bad!" And another child believes it is "Taking other people's jobs."

7. Impact

Teachers have rapidly grown in confidence. The lessons and support videos have really boosted their subject knowledge. They are keen for it to become an embedded part of the computing curriculum. Pupils are talking about it at home and in school. The lessons have definitely piqued their interest but also boosted their weariness of it.

8. Next steps

We will now be embedding the teaching of AI across the school's Computing Curriculum. I will most likely continue with the project to keep ahead of the latest developments and contribute to the development of the curriculum.

TAI Case Study – Nook Lane Junior School

1. School details

Nook Lane Junior School, 252 pupils, Autism Integrated Resource.

2. Policy

We follow the Trust AI policy.

3. AI Lessons – teacher perspectives

Class teachers taught the lessons to each year group. All teachers felt that they weren't strong subject-wise. Some staff are using AI to support their role in school, but not extensively.

In the survey completed post lessons, the majority of teachers (80%, n=5) rated themselves as a 3 out of 5 for confidence talking to children about AI, the remaining teacher rated themselves at a 4. Of the four teachers who had taught the lessons, three reported that they felt 'slightly more confident' following delivery. The fourth was about the same.

4. AI Lessons – pupil perspectives

Children enjoyed the lessons. There was a lot of content, often going over an hour, but teachers thought it was at an appropriate level. Children liked the interactive activities – Google Quickdraw and the Kopemon activity – this latter activity generated the conversations you wanted them to have about AI and machine learning.

Prior to lessons, children considered AI as a bit scary – based on representations in the media or conversations with parents. Most children thought they could recognise AI images, but were overconfident in their capabilities. After the lessons, they had more knowledge, but needed more consolidation in the concepts to be able to retrieve the information.

5. Pupil use of AI

Pupils are not obviously using AI, but they are using social media, and will be exposed to a large amount of AI content, e.g. on Tik Tok or Instagram.

6. Next steps

The school will continue to deliver the AI lessons across all year groups, and are investigating implementing the year 5 unit to give children a more in depth look at the concepts.

TAI Case Study – Oughtibridge Primary School

1. School details

Oughtibridge Primary School is a mainstream school for pupils aged 4-11, and is part of Peak Edge Academy Trust. Located in the north-west of Sheffield, Oughtibridge has 412 pupils across 14 classes.

Current pupil characteristics are:

- Pupil Premium: 9%
- Special Educational Needs and Disabilities (SEND): 13%
- English as an Additional Language (EAL): 4%
- Black and Minority Ethnic (BME): 12%
- Pupil Mobility: 5%

2. Policy

Oughtibridge Primary School has two implemented AI policies; one for staff and one for pupils and parents.

For pupils and parents, Generative AI may only be used in structured and supervised contexts, such as research, idea generation and supported coursework or homework. Pupils are required to sign an Acceptable Use Statement and are explicitly taught what constitutes AI misuse, including submitting AI-generated work as their own or failing to acknowledge AI use appropriately.

3. AI Lessons – teacher perspectives

The Teaching about AI in Primary project was introduced during a whole-staff meeting. The session provided an overview of Artificial Intelligence, its appropriate and acceptable use within the school, and the resources available to support teachers in delivering the lessons.

Following this introduction, staff were given dedicated time to access and review the supporting video guidance materials. These were well received and widely reported as being useful in developing understanding of the content, risks and place of teaching about AI in school. Teachers noted that the videos provided clear explanations and practical support, which helped to build confidence ahead of delivery. All lessons were then delivered by class teachers.

Overall, teachers reported that the pitch and level of the lessons were appropriate for learners, with strong engagement observed across year groups. Teachers stated that the structure and sequencing of content supported effective learning of key concepts and clear progression was evident. However, it was noted that some Key Stage 2 lessons would benefit from revisiting foundational concepts introduced in the Key Stage 1 materials, ensuring that prior knowledge of AI is not assumed.

Teacher confidence prior to the project was generally moderate to low, particularly in relation to teaching AI-specific concepts. This was reflected in staff feedback, where confidence ratings averaged around 2-3 out of 5. Staff commonly reported limited prior experience, with some expressing concern about the rapid pace of development in AI and the potential for content to quickly evolve.

Following engagement with the resources, guidance videos and delivery of the lessons, teacher confidence increased noticeably to 4 or 5 out of 5. Staff reported feeling more secure in delivering AI-related content and more positive about its inclusion within the curriculum. Survey responses

indicated a shift towards greater familiarity with key terminology such as artificial intelligence, machine learning and generative AI, alongside improved confidence in explaining these concepts to pupils.

Staff also reported increased awareness of pupil engagement with AI outside school. Pupils were noted to be using AI tools in informal contexts, such as generating images or interacting with chatbots, highlighting the importance of structured in-school teaching to develop safe and informed understanding.

4. AI Lessons – pupil perspectives

Pupil voice interviews were conducted before the project began in December 2025 and again approximately six months after in June 2026. The comparison demonstrated a significant improvement in pupils' understanding of Artificial Intelligence.

Prior to the lessons, pupils had very limited knowledge of AI. Most associated it with robots or fictional characters, with few able to explain what AI was or identify examples of how it is used in everyday life.

By June 2026, pupils across Key Stages 1 and 2 were confidently discussing AI using accurate vocabulary and real-world examples. They understood that AI is trained by humans using data, recognised that AI systems can make mistakes or reflect bias, and explained that AI is not a person or a robot but a computer system that identifies patterns and generates responses. Older pupils were able to recall concepts such as Large Language Models and demonstrated an understanding of why AI should not always be trusted without question.

Pupils responded positively to the lessons and remained highly engaged throughout the project. Interactive activities, particularly Google Quick, Draw!, were consistently identified as favourites because they helped pupils understand how AI learns through recognising patterns. All Year 5 and 6 pupils interviewed expressed an interest in learning more about AI, suggesting that the lessons had sparked sustained curiosity beyond the classroom.

The project also supported pupils to develop a balanced and critical view of AI. Rather than seeing AI as either entirely positive or negative, pupils recognised both its benefits and its limitations. They discussed how AI can support learning, creativity and problem-solving while also identifying risks such as misinformation, bias, deepfakes, scams, environmental impact and the importance of protecting personal information online.

5. Pupil use of AI

Pupil voice interviews conducted in December 2025 and June 2026 highlighted a noticeable increase in pupils' use of AI outside school over the course of the project. In the initial interviews, relatively few pupils reported using Generative AI tools, with most references limited to smart speakers or a general awareness of AI. By June 2026, the majority of pupils were able to describe first-hand experiences of using AI at home, reflecting the growing accessibility and prevalence of AI technologies in everyday life.

Pupils reported using AI in a wide variety of ways, including supporting homework, generating images, answering questions, editing writing, identifying objects, suggesting recipes, creating videos and exploring creative ideas. Whilst younger pupils generally used AI alongside a parent or carer,

older pupils were increasingly using tools such as ChatGPT and Microsoft Copilot independently. Smart speakers such as Alexa were commonplace across all age groups.

Alongside this increased use, pupils demonstrated a more mature and critical understanding of AI. Many explained the importance of checking whether AI-generated information was accurate, recognised that AI can make mistakes or reflect bias, and understood that AI should support, rather than replace, their own thinking. One group commented that they would not rely solely on AI to determine whether a wild mushroom was safe to eat, demonstrating an ability to apply critical thinking to real-life situations.

Pupil discussions also highlighted opportunities for future teaching. Although many pupils were using AI regularly, none of the Upper Key Stage 2 pupils interviewed were aware of the minimum age requirements for many Generative AI tools, reinforcing the importance of continuing to teach safe, responsible and age-appropriate use of AI as part of the computing and online safety curriculum.

6. Barriers

Overall, relatively few barriers were encountered during the implementation of the project. The biggest challenge at the outset was teacher confidence. As AI is a rapidly evolving area of education, many staff had limited prior knowledge and some were initially hesitant about teaching AI-related concepts.

The rapid pace of AI development also presents an ongoing challenge. New tools and applications continue to emerge, meaning that lesson examples, guidance and policy require regular review to ensure they remain current and relevant.

7. Impact

The Teaching about AI in Primary project has significantly improved both pupil understanding and staff confidence, establishing a consistent approach to AI education across the school.

Pupils developed a secure understanding of AI, progressing from limited knowledge to confidently explaining how AI works, recognising its everyday uses, and discussing concepts such as bias, Large Language Models and the importance of evaluating AI-generated information critically. Follow-up pupil voice demonstrated that this learning had been retained over six months and that pupils had developed a balanced understanding of both the opportunities and challenges associated with AI.

Staff confidence also increased substantially, with confidence ratings rising from 2–3 out of 5 to 4–5 out of 5 following professional development, coaching and access to high-quality teaching resources. Teachers reported feeling more confident teaching AI concepts, while the supporting guidance helped ensure consistent delivery across the school. Overall, the project has embedded a sustainable, whole-school approach to AI education.

8. Next steps

Next year, the main focus will be on refining and embedding the AI lessons within the Computing curriculum at Oughtibridge, ensuring that they are aligned with the Teach Computing curriculum provided by the NCCE. There will be a particular focus on ensuring that the Key Stage 2 lessons revisit the foundational concepts taught in Key Stage 1, so that prior knowledge is not assumed.

A further aim is to share these resources across Peak Edge Academy, ensuring that all schools within the Trust have the opportunity to teach their pupils about AI through a clear and consistent approach.

We also plan to provide parents and carers with clear information about AI, including how it is being taught in school, how children may be using it at home, and how families can support safe, responsible and age-appropriate use.

TAI Case Study – Owler Brook Primary School

1. School details

Owler Brook Primary School is a large, inclusive primary school located in the Page Hall/Wincobank area of Sheffield and is part of the Cascade Multi Academy Trust.

Capacity = 420
Percentage of children eligible for free school meals - 69.6%
Pupils who are EAL (384)
Pupils with SEN Support or EHC Plan (118)

2. Policy

Cascade Trust has implemented an AI Acceptable Use Agreement (January 2026) for staff, trustees and governors.

3. AI Lessons – teacher perspectives

As Computing Lead, I taught the lessons to three Year 6 classes, one Year 5 class, one Year 4 class and one Year 3 class. Some teachers at Owler Brook did not feel confident delivering the lessons themselves, so I led the sessions to ensure the content was taught accurately and consistently.

I accessed all of the video guides. They were extremely helpful as they provided clear explanations and key messages, helping to keep the lessons focused and ensuring that information was communicated accurately without being misleading.

The level of the lessons was generally appropriate and engaging for our learners. The children were excited to discuss AI and participated enthusiastically in open discussions, which they particularly enjoyed. However, as many of our pupils are EAL learners, some found the language and terminology challenging. New vocabulary and technical terms required additional support, as our children benefit from repeated exposure to key vocabulary and the use of Widgit symbols to aid understanding. I adapted the materials by incorporating Widgit symbols, which helped make the content more accessible.

For some pupils, particularly in Year 4 and above, there was a noticeable cognitive load due to the volume of information presented across the slides. While they remained interested and engaged, simplifying some of the language, reducing the amount of content on individual slides, and providing more opportunities to revisit key concepts would further support understanding and retention. Overall, the lessons sparked curiosity and encouraged meaningful discussion, but some adaptations would make them more accessible for our learners.

Teacher confidence prior to the project was mixed and, in some cases, relatively low. Personally, I did not feel fully confident before delivering the AI lessons, as I was still developing my own understanding of some of the terminology and concepts. I was concerned about being able to answer pupils' questions accurately and wanted to ensure that any discussions around AI were factual and age-appropriate.

Among staff, there were varying levels of confidence and differing views about AI. Some teachers, particularly in upper Key Stage 2, expressed reservations about teaching the topic. These concerns were linked to negative perceptions of AI, questions around whether it is appropriate for primary-aged children to learn about, and wider discussions regarding its ethical implications and environmental impact. As a result, some staff felt less comfortable delivering the lessons without additional guidance or training.

Overall, the project helped to increase understanding and confidence by providing a structured opportunity to explore AI with pupils and engage in informed discussions around the topic.

Delivering the lessons significantly increased my confidence in teaching about AI. Through the discussions and questions raised by pupils, I was able to identify and address common misconceptions, helping both the children and myself develop a deeper understanding of the topic.

The lessons also provided valuable opportunities for reflection. Children often asked thoughtful questions that I was not always able to answer immediately, which encouraged me to research further and revisit these points in subsequent lessons. This helped create an ongoing learning process for both myself and the pupils.

As I delivered the lessons across different year groups and became more familiar with the content and resources, my confidence grew. Repeatedly working through the slides and facilitating discussions helped me feel more comfortable with the terminology and concepts, enabling me to lead lessons with greater assurance and respond more effectively to pupils' questions.

4. AI Lessons – pupil perspectives

The pupils thoroughly enjoyed the AI lessons and were highly engaged throughout. They were very interested in learning what AI is and were surprised to discover that it is not a robot. The children particularly enjoyed looking at the AI-generated images, including the cow on roller skates, other humorous pictures, and the image of the dog and muffins, which captured their interest and prompted lots of discussion.

The pupils also enjoyed the interactive online games, especially the Fish or Not a Fish sorting game and the Quick, Draw! game, which they found fun and engaging. The Pokémon-themed lessons were particularly popular; the children enjoyed creating their own Pokémon cards and using reasoning skills to sort and group different Pokémon according to their characteristics. Before the lessons, many pupils thought AI was a robot or a small person sitting behind a computer answering questions. Several children associated AI with digital assistants and websites they had heard of or used, such as ChatGPT, Alexa and Claude AI. While some pupils were aware of these tools, they generally did not understand how AI works and often assumed there was a real person or robot providing the responses. The lessons helped pupils develop a clearer understanding of what AI is and how it can be used.

After the lessons, pupils had a much clearer understanding of what AI is and how it works. They learned that AI is not a robot or a small person sitting behind a computer answering questions, which many had previously believed. The children were often surprised by this and were interested to discover how AI can learn from data, recognise patterns, and generate responses and images. By the end of the unit, pupils were able to identify examples of AI in everyday life and had developed a more accurate understanding of its uses and limitations.

Pupils' opinions of AI were mixed, with both positive and negative views emerging during discussions. Some children felt worried or nervous about AI. This was often linked to videos they had seen online that portrayed AI in a frightening way, or concerns about AI editing photos and images without people's permission. Some pupils were also concerned about the impact AI could have on future jobs, believing that it might replace people in certain careers. A few particularly articulate pupils raised concerns about the environmental impact of AI and the amount of energy it can require.

On the other hand, many children were excited about AI and enjoyed exploring its creative possibilities. They liked seeing how AI could generate unusual images and make people appear to do things they would not normally do. Older pupils, particularly in Year 6, recognised the potential benefits of AI as a learning tool and felt it could help them with tasks such as SATs revision and practice questions.

5. Pupil use of AI

Pupils report using AI at home primarily to support their learning and complete homework tasks. Some children have also used AI-powered tools for creative purposes, such as generating images, editing photographs, or creating videos. Examples shared by pupils include using AI to place themselves in locations they have never visited or to create images that make it appear they are driving a car.

Personally, I have not noticed a significant change in the way pupils use AI over the course of the year. However, towards the end of the previous academic year, particularly in Key Stage 2, there was an increase in pupils using AI tools to support homework and SATs revision.

6. Barriers

Having taught the AI lessons across a range of Key Stage 2 classes, I found that many pupils developed a good understanding of key concepts and terminology. However, some of the vocabulary and explanations were complex and language-heavy, which created challenges for certain learners. This was particularly noticeable for pupils with English as an Additional Language (EAL), who at times experienced cognitive overload when introduced to unfamiliar technical terminology.

Another barrier was staff confidence and perceptions of AI. Findings from our school survey indicated that some teachers held concerns about the potential risks of AI, including its impact on the environment and the possible negative consequences of its misuse. As a result, some staff were initially reluctant to teach AI-related content and felt uneasy about introducing the technology to pupils. These concerns highlighted the importance of providing staff with appropriate training, guidance, and opportunities to explore both the benefits and risks of AI within an educational context.

7. Impact

I have noticed a positive impact on pupils' understanding of AI, particularly in recognising both its benefits and potential risks. Pupils have developed a greater awareness of how AI can be used responsibly to support learning, while also understanding the importance of staying safe online. They are increasingly able to question the reliability of AI-generated content and recognise that images, videos, and other media may have been altered or created using AI. As a result, pupils are becoming more critical consumers of digital content and are less likely to accept everything they see online as fact.

Given the significant social and emotional needs of many pupils within our school, an important aspect of the lessons has been helping children understand the limitations of AI. Pupils have explored why chatbots and AI tools should not replace real-life friendships, trusted adults, or human relationships. This has supported discussions around wellbeing, digital literacy, and the importance of seeking help and advice from appropriate people when needed.

In terms of staff impact, I believe confidence and understanding have increased as a result of ongoing training and the delivery of AI-focused lessons. As teachers have become more familiar with the topic, many have gained a greater appreciation of the importance of educating pupils about AI in a balanced way. While there are understandable concerns surrounding the risks and challenges associated with AI, staff are increasingly recognising the value of teaching children how to use these technologies safely, responsibly, and critically. As AI continues to evolve, it is essential that both pupils and staff remain informed about emerging research, opportunities, and risks.

8. Next steps

As Computing Lead, my next steps are to continue embedding AI education across the school and further develop the delivery of AI lessons within Key Stage 2. I have already shared guidance, resources, and training opportunities with staff to support them in delivering AI-related lessons with confidence. We have also incorporated the Sheffield AI scheme of work into our Computing curriculum for the Autumn term to ensure that all pupils develop an understanding of AI, its benefits, its risks, and how to use it safely and responsibly.

Moving forward, I will continue to engage with emerging research and developments in AI, particularly around its impact on children and young people, both positively and negatively. This will help ensure that our curriculum remains current, relevant, and informed by the latest evidence and best practice.

A further priority is to continue supporting colleagues who may feel less confident or have reservations about teaching AI. Through ongoing professional development, shared resources, and open discussions, I hope to build staff confidence and reinforce the importance of equipping pupils with the knowledge and skills they need to navigate a rapidly changing digital world. It is essential that children understand the wide range of AI technologies they may encounter and learn to use them safely, critically, and responsibly.

In addition, I will continue to contribute to the Trust's AI Strategy Group, where colleagues collaborate to discuss the implementation of AI education across our schools. This work includes exploring how AI links with wider curriculum areas, particularly PSHE, to ensure pupils develop not only technical understanding but also the knowledge, skills, and values required to use these technologies safely and ethically.

TAI Case Study – Pye Bank CE Primary School

1. School details

Pye Bank CE Primary School - The Diocese of Sheffield Academies Trust

Pupil Premium - 63.2%
EAL - 67.4%
BME - 98.5%
Stability - 79%

2. Policy

We are in the process of developing an AI policy.

3. AI Lessons – teacher perspectives

I, as computing lead, taught the AI lessons to the whole of Year 2 and Year 4. I accessed the video guides prior to teaching Year 2 and Year 4. I found them particularly helpful as I did not initially feel as confident teaching the Year 4 lessons as I did the Year 2 lessons. I initially felt more confident delivering the Year 2 lessons than the Year 4 lessons due to the fact that I personally thought I needed less general knowledge surrounding Artificial Intelligence to teach a younger cohort of children. The video guides impacted my confidence teaching higher up the school and gave me an excellent understanding of Machine Learning which I did not have before starting the Artificial Intelligence Research Project. The Year 6 lessons were delivered during PPA cover and therefore there was less of an impact on pupil understanding than in other year groups. When the Artificial Intelligence lessons are properly placed in the Computing curriculum next year, I would prefer these to be delivered by the class teacher rather than whoever is covering PPA in the class. Teachers will be spoken to the half-term before the lessons are being taught to ensure that they feel confident in teaching what we are asking them to deliver.

4. AI Lessons – pupil perspectives

The pupils I taught across a range of year groups thoroughly enjoyed the lessons. They found the content of the lessons interesting and commented on how it was exciting to do something different. In Year 2, the children loved the task where they had to draw a picture of a butterfly. They were shocked at the fact they didn't all draw the exact same thing. This led to a great discussion about how we all recognised that each other had drawn a butterfly by the similar features they had, but everyone's individual representation of a butterfly was different. This led nicely to the next part of the lesson which explained that Artificial Intelligence gets its data and answers from things that have already been published online. The children thoroughly enjoyed playing Google Quick Draw – a game that they still request to play every home time to this day. The children already receive Online Safety lessons and one of them is surrounding the use of technology and smart speakers. The children understood that smart speakers, e.g. Alexa, Google & Siri were forms of Artificial Intelligence. The vast majority, with a higher level of English language, understood that smart speakers were not real people and that they take their information from the internet. Some of them still believe that AI is a physical robot. Most understand that it is a 'robot' but know that it is not a physical thing.

In Year 4, the children loved that they were learning about Artificial Intelligence because 'it is exciting'. As a whole, they weren't as engaged in the learning as the Year 2 children were, but this was not surprising as I knew some of the personalities in the class. They understood that the voice of

the smart speaker is not a real person trapped inside the device. They know that the smart speakers get the information from the internet. The children did not have any understanding of machine learning to begin with. By the end of the lesson, the children knew that they could train a computer to recognise things. They understood that this was called machine learning. Their biggest takeaways from the lessons in general were that you can train AI to do something so that it can then go on and do it by itself without as much human input and they knew they had to have parental permission to use AI and that you shouldn't ask AI to do 'bad things' like asking inappropriate questions or making AI 'be mean' which was mentioned during the pupil voice session.

The Year 6 children already had a good understanding of Artificial Intelligence before completing the lessons. When comparing their knowledge about AI from both pupil voice sessions, it appeared that they had not particularly expanded their knowledge after receiving the lesson input. I believe it would be beneficial for the teacher of the class to deliver the lessons in future rather than PPA cover. I received notes from some Year 6 children who were giving me feedback on the lesson where they had to create a chatbot on Scratch. They enjoyed the lesson but found some of the coding tricky. I believe we will teach the facial recognition lesson next year instead.

5. Pupil use of AI

During the first pupil voice session in April 2026, Year 5 & 6 pupils spoke about whether they had used AI and if so, how they have used it:

"I don't use AI because I don't really trust it."

"I use AI to look up things quickly. I speak to Alexa."

"Sometimes I ask it questions that are important. I use it for my entertainment. I make videos."

During the second pupil voice session in June 2026, a wider range of pupils were questioned. All children had used AI at some point:

"I use AI for ideas to do when I am bored"

"I have used AI to tell me the latest news, make poems and inspiration"

"Just homework and figuring stuff out"

6. Barriers

I found that all year groups had to have the Y2 AI definition shared with them due to a lot of the pupils having EAL. Carrying out the research could be slightly difficult at times due to not everybody responding to prompts.

7. Impact

The year 2 and 4 children have a greater understanding of AI than they did at the start of the year. The teachers who taught the lessons feel more confident than they did previously. They found the video guides to be useful.

8. Next steps

For next academic year, AI will be put into the Computing curriculum. Next year, I would like all teachers to feel more confident teaching the AI lessons to their classes. Teachers will be approached before teaching the lessons so support can be offered. I will be collecting data as the year goes on to see how children are finding the lessons.