Beech Hill Primary School Knowledge Organiser

| Topic: Computing – Digital literacy | Year group | Term |
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| AI Unit 2 | Year 4 | Summer 2<br>6 sessions |

| Background knowledge |
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| Children learn more explicit concepts: rules vs learning machines, datasets, bias, misinformation, and responsible use of AI tools. |

| What should I already know? |
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| That AI can follow instructions, recognise patterns, but sometimes "guess" what we want based on data. AI plays a part in everyday life, but we must use it safely, and we must use Copilot responsibly. |

| National Curriculum Objectives / Key Skills | The Journey |
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| **NC**<br><br>Pupils should be taught to:<br><br>* use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content<br>* select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information<br>* use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | Throughout the unit, children will:<br><br>Lesson 1. What AI can and can't do.<br>(Activity 1: Powerpoint including questions)<br>(Activity 2: Sorting activity)<br><br>Lesson 2:<br>(Activity 1) How to train AI with machine learning powerpoint.<br>(Activity 2: Semantris website https://experiments.withgoogle.com/semantris Children play a word association game to train AI on the links between words, which speeds up how AI produces results).<br><br>Lesson 3:<br>Discuss what bias means and when in life people can be biased.<br>Explain that AI can be biased based on what it has been trained on. |

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| | (Activity: Bias activity. Children draw their six emotions and then compare with each other. This is how AI learns what "happy" eg, means. Does happy look different for different people, based on their drawings.<br><br>Lesson 4: Research and checking reliability. Using co-pilot; the children will research a topic they know well that they have already learned in school. If you ask AI about it, are its answers accurate. Can you spot what is accurate and what is not accurate? Children can copy the answers, paste them into word, and use two highlighting colours, one for I think it's true, one for I'm not sure AI is correct.<br><br>Lesson 5: Lesson 5 — Misinformation and AI Mistakes<br>Activity:<br>• Give pupils mixed answers from Copilot, some correct, some incorrect.<br>• They label them: fact, fiction, needs checking.<br><br>Lesson 6<br>Real or manipulated?<br>(Activity 1: Powerpoint with Introduction and discussion points.<br>(Activity 2: There are two different activities where children will examine photos and decide which photos have been manipulated and how or are they real. This can be done in pairs, small groups or as a whole class.<br>(Activity 3: Children will examine photos then explain in writing how the photo has been manipulated.) |

## Outcomes

Lesson 1: Children will be able to identify what AI currently is, and is not, able to do.

Lesson 2: Children will know that AI is trained on our input.

Lesson 3: Children will know that AI's results can show bias, as a result of our inputs.

Lesson 4: Children can question whether AI's results are accurate.

Lesson 5: Spot when AI outputs might be false or misleading.

Lesson 6: Spot a manipulated image and explain how it has been altered.

## Key Vocabulary

Algorithm, data, dataset, patterns, predictions, bias, safety, reliability, misinformation, machine learning, training.

## Question of the week.

1. Give me an example of one thing AI can do, and can't do.
2. What words do you associate with the word "tree". Draw a spider diagram.
3. Give me an example of when AI's results might show bias.
4. Why is it important that we don't always trust AI's results.
5. Read these three sentences. Label them, fact, fiction and needs checking.
6. Examine these two photos, which one do you think is real, which one is fake and how can you tell.