Year 6 Computing

Summer 2: We Are AI Developers

Session	National. Curriculum Statement	WALT	Learning Outcomes (Success Criteria)	Resources	Vocabulary
Subject Cultural Capital = Using & Applying computing knowledge to solve problems **Differentiation = please see the differentiation for the EXC EM & SEND (Please see SEND pupils IEPs when planning)** **expectations to check for understanding during lessons = targeted questioning / mini whiteboards/ peer talk /thumb signs** **Long term memory skill development strategy = LAST, LAST, LAST linked to the WALT** **& Numeracy skills development = ICT vocabulary bank linked to the WALT & include numeracy skills where they are linked to the WALT in the weekly planning**				**Minimum** **Literacy**	
On-Line safety: Pupils should remember not to share personal information when using online services. If Teachable Machine is used it would be best not to use pupils' own faces in the training data. You could broaden the discussion of facial recognition by machine learning systems and whether this is an invasion of privacy or needed in certain circumstances.					
1	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	To create, train and refine a machine learning decision tree classifier	Children create and refine a decision tree.	Laptops/desktops Scratch	Artificial intelligence Decision tree classifier Test data Machine learning Training data
2	Use and combine a variety of software 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.	To experiment with speech recognition systems	Children have the opportunity to evaluate a range of speech recognition systems. Children create their own in Scratch.	Laptops/desktops Scratch	Spectrogram

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3	Use and combine a variety of software 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.	To understand how a neural net operates	Children simulate how a neural net operates to determine what is on a postcard.	Laptops/desktops Scratch	Node layers
4	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use and combine a variety of software 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.	To train a neural net to recognise images	Children train a neural net to recognise images and experiment with one that is already trained.	Laptops/desktops Scratch	Image recognition model
5	Use and combine a variety of software 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.	To explore sentiment analysis	Children create a program that responds to whether they like something.	Laptops/desktops Scratch	Machine learning Labels Classifier Speech recognition Sentiment analysis
6	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use and combine a variety of software 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.	To program a self-driving car, and consider the ethical implication of AI	Children create a program for a self-drive car. Children discuss the ethics of AI.	Laptops/desktops Scratch	Machine learning model