

	Introduces...	By getting kids to make a...	Teaching a machine to recognise...	What they will learn
Lesson 1: “Smart Classroom”	Confidence thresholds	Virtual Assistant	text	<ul style="list-style-type: none"> How computers can be trained to recognise the intent behind writing. Confidence thresholds indicate when the machine cannot recognise the meaning. How virtual assistants (e.g. Apple Siri, Amazon Alexa, Google Home) work.
Lesson 2: “Make me happy”	Sentiment analysis	Scratch character	text	<ul style="list-style-type: none"> How computers can be trained to recognise emotional tone. How supervised learning builds systems that can deal with unexpected input.
Lesson 3: “Rock, Paper, Scissors”	Image recognition	Webcam game	images	<ul style="list-style-type: none"> How computers can be trained to recognise pictures. The important of variety in training machine learning systems.
Lesson 4: “Mailman Max”	Handwriting recognition	Sorting Office game	images	<ul style="list-style-type: none"> How computers can be trained to recognise handwriting How OCR is used to automate tasks like recognising postcodes on letters
Lesson 5: “Pac-Man”	AI in games	Pac-Man	numbers	<ul style="list-style-type: none"> How machines are taught to play games Decision tree learning as a way for computers to learn how to play games.
Lesson 6: “Sorting Hat”	Text classification	Harry Potter game	text	<ul style="list-style-type: none"> How computers can recognise different types of language.
Lesson 7: “Judge a book”	Image recognition	Scratch game	images	<ul style="list-style-type: none"> How effectiveness of a machine learning system can be measured by comparing performance against humans.
Lesson 8: “Noughts & Crosses”	AI in games	Noughts & crosses	numbers	<ul style="list-style-type: none"> How machines have been taught to play games since the 1960’s. Decision tree learning as a way for computers to learn how to play games.
Lesson 9: “Tourist Info”	Training bias	Holiday app	text	<ul style="list-style-type: none"> The impact of training bias on machine learning systems Ethical questions introduced by training bias in machine learning systems.
Lesson 10: “Top Trumps”	Categorical data	Scratch card game	numbers	<ul style="list-style-type: none"> Collecting training is easier than manually labelling training data. Computers can learn to play games where the correct answer cannot be known, by predicting the likelihood of each outcome.
Lesson 11: “Headlines”	ML testing	Test system	text	<ul style="list-style-type: none"> How computers can be taught to recognise the source of writing How machine learning systems are tested.