Machine Learning For Kids :: Teachers' notes	
Worksheet	Make Me Happy
Activity	Create a character in Scratch that smiles if you say nice things to it and cries if you say mean things to it.
Objective	 Teach a computer to recognise compliments and insults How computers can be trained to recognise emotional tone How supervised learning builds systems that can deal with unexpected input
Difficulty level	Beginner
Time estimate	45 minutes
Summary	Students will train a machine learning model to recognise compliments and insults by typing examples of kind statements and mean statements. They will use this in Scratch to make a character that reacts to messages based on sentiment.
Topics	sentiment analysis, supervised learning
Setup	
Each student will need:	
Print-outs	Project worksheet (download from https://machinelearningforkids.co.uk/worksheets) Blocks in Scratch scripts are colour-coded, so printing in colour will make it easier for students.
Access	Username and password for machinelearningforkids.co.uk
Class account will need:	
API keys Watson Conversation	
7411643	1 workspace per student
	One "Lite" API key is free but can only be used to create 5 workspaces One "Standard" API key can be used to create to create 20 workspaces
	more detail at: https://github.com/dalelane/ml-for-kids/raw/master/doc/machinelearningforkids-apikeys.pdf
Help	
Potential issues	 Younger students may get carried away when writing insults to train the machine learning model. It may be helpful to set boundaries for what language is appropriate. Time management is important for this project. Students often lose track of time drawing their face and don't leave enough time for training or coding. General troubleshooting and help at https://machinelearningforkids.co.uk/help