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 Assistant** 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/IBM/taxinomitis-docs/raw/master/docs/pdf/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. • "https://machinelearningforkids.co.uk" is a long URL to type for some children. You may find it easier to set up a bookmark that they can click on instead. • The worksheet screenshots are based on Scratch 3. You may prefer to use Scratch 2 instead, however students may find it harder to find some blocks. General troubleshooting and help at https://machinelearningforkids.co.uk/help