

# Machine Learning For Kids :: Teachers' notes

<b>Worksheet</b>	<b>Make Me Happy</b>
<b>Activity</b>	Create a character in Scratch that smiles if you say nice things to it and cries if you say mean things to it.
<b>Objective</b>	<b>Teach a computer to recognise compliments and insults</b> <ul style="list-style-type: none"> <li>How computers can be trained to recognise emotional tone</li> <li>How supervised learning builds systems that can deal with unexpected input</li> </ul>
<b>Difficulty level</b>	Beginner
<b>Time estimate</b>	45 minutes
<b>Summary</b>	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.
<b>Topics</b>	sentiment analysis, supervised learning

## Setup

Each student will need:

<b>Print-outs</b>	Project worksheet (download from <a href="https://machinelearningforkids.co.uk/worksheets">https://machinelearningforkids.co.uk/worksheets</a> )  Blocks in Scratch scripts are colour-coded, so printing in colour will make it easier for students.
<b>Access</b>	Username and password for machinelearningforkids.co.uk

Class account will need:

<b>API keys</b>	<b>Watson Conversation</b> 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 20 workspaces  more detail at: <a href="https://github.com/daledane/ml-for-kids/raw/master/doc/machinelearningforkids-apikeys.pdf">https://github.com/daledane/ml-for-kids/raw/master/doc/machinelearningforkids-apikeys.pdf</a>
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## Help

<b>Potential issues</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul> <p>General troubleshooting and help at <a href="https://machinelearningforkids.co.uk/help">https://machinelearningforkids.co.uk/help</a></p>
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