

# Machine Learning For Kids :: Teachers' notes

<b>Worksheet</b>	<b>Newspaper shelves</b>
<b>Activity</b>	Train a computer to recognise headlines from national newspapers.
<b>Objective</b>	<b>Test the computer's ability to recognise use of language</b> <ul style="list-style-type: none"> <li>How computers can be taught to recognise the source of writing</li> </ul>
<b>Difficulty level</b>	Intermediate The project is easy to make, but typing in headlines for training data can be time-consuming
<b>Time estimate</b>	1 hour
<b>Summary</b>	Students will collect examples of headlines from national newspapers. These will be used to train a machine learning model based on the use of language in headlines. They will create a Scratch project that puts a newspaper on the right shelf based on predicting which newspaper a new headline is from.
<b>Topics</b>	text classification, 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 Assistant</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://machinelearningforkids.co.uk/apikeys-guide">https://machinelearningforkids.co.uk/apikeys-guide</a>
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## Customizing

If you use **PRIMM** approaches with your class, add a step where students predict how the project template works. If you want to **increase the amount of coding** involved, delete some of the code from the project template and add steps to the worksheet so students code it themselves.

If you want to **encourage problem solving**, delete some of the detail in the worksheets and provide more general instructions instead.

Project template files & worksheets in MS Word format are available so you can **modify them to suit your class**.

<b>Template</b>	<a href="https://github.com/IBM/taxinomitis-docs/tree/master/scratch-templates">https://github.com/IBM/taxinomitis-docs/tree/master/scratch-templates</a>
<b>Worksheets</b>	<a href="https://github.com/IBM/taxinomitis-docs/tree/master/project-worksheets/msword">https://github.com/IBM/taxinomitis-docs/tree/master/project-worksheets/msword</a>

## Help

<b>Potential issues</b>	<ul style="list-style-type: none"> <li>Some newspapers use language that may not be appropriate for younger children. Tell your class which newspapers to choose if you have concerns.</li> <li>If you would like to save time, you could modify the worksheet to use two or three newspapers instead of four.</li> <li>"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.</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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