



Jerry Clay Academy
Subject Unit Overview

Subject: Computing Year Group: 6 Term: Summer 2

Core Learning of This Unit: We are AI developers

- How decision trees can be trained automatically to classify data
- How speech recognition works
- How a neural net recognises images
- To train a neural net to classify images
- To train a machine learning system to identify sentiments
- To consider some ethical principles in designing AI systems

Prior Learning:

Pupils encountered classification trees and image recognition in Unit 2.6: We are zoologists.

Pupils encountered the self-driving car Scratch program in Unit 3.2: We are bug fixers.

Some pupils may have made use of speech recognition in Unit 6.3: We are publishers.

National Curriculum Statements:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Key Vocabulary:

- Artificial intelligence
- Classifier
- Decision tree
- Image recognition
- Label
- Layer
- Machine learning
- Model
- Natural language processing
- Neural network
- Node
- Sentiment analysis
- Spectrogram
- Speech recognition
- Test data
- Watson