

Featherstone Academy Assessment Criteria for _____ Computing_____

Year 1

Unit name – We are Treasure Hunters

- That a programmable robot can be controlled by inputting a sequence of instructions
- To develop and record sequences of instructions as an algorithm
- To program a robot to follow their algorithm

Unit name – We are TV Chefs

- Use different features of a video camera
- Use a video camera to capture moving images
- Edit a video to include an audio commentary

Unit name – We are digital artists

- how to select and set brushes and colours
- to create artwork in a range of styles on iPads
- to use the undo function if they make mistakes, and to encourage experimentation

Unit name – We are publishers

- plan a small multimedia eBook
- choose and import images
- record audio commentary

Unit name – We are rhythmic

- record audio on an iPad
- program sprites to playback recorded audio in ScratchJr
- program ScratchJr to create repeating rhythms using recorded audio and explore different effects that can be applied to audio

Unit name – We are detectives

- how data can be structured as records with fields for information
- how data can be organised into groups and subgroups
- how data can be structured as a tree and how data can be organised into a table

Year 2

Unit name – We are astronauts

- plan a sequence of instructions to move sprites in ScratchJr
- create, test and debug programs for sprites in ScratchJr
- work with input and output in ScratchJr

Unit name – We are game testers

- observe and describe carefully what happens in computer games
- use logical reasoning to make predictions of what a program will do and test these predictions
- think critically about computer games and their use and create sequences of instructions for a virtual robot to solve a problem

Unit name – We are photographers

- consider the technical and artistic merits of photographs
- use the iPad camera app
- take digital photographs

Unit name – We are safe researchers

- develop research skills through searching for information on the Internet
- think through privacy implications of their use of search engines
- be more discerning in evaluating online information

Unit name – We are animators

- use storyboards to plan an animation
- create their own original characters, props and backgrounds for an animation
- film, review and edit a stop-motion animation

Unit name – We are zoologists

- take, edit and enhance photographs
- use Google Sheets or Microsoft Excel to produce basic charts
- record information on a digital map

Year 3

Unit name – We are programmers

- take, edit and enhance photographs
- use Google Sheets or Microsoft Excel to produce basic charts
- record information on a digital map

Unit name – We are bug fixers

- develop a number of strategies for finding errors in programs

- build up resilience and strategies for problem solving
- increase their knowledge and understanding of Scratch

Unit name – We are presenters

- structure, prepare and deliver a talk about a given topic or subtopic studied in another curriculum area
- record a piece to camera
- edit a movie using static images and green screen footage

Unit name – We are who we are

- create a number of structured presentations
- narrate presentations
- consider issues of trust and privacy when sharing information.

Unit name – We are co-authors

- become familiar with Wikipedia, including potential problems associated with its use
- practise research skills
- write for a target audience using a wiki tool

Unit name – We are opinion pollsters

- use the Internet to facilitate data collection
- use charts to analyse data
- interpret results.

Year 4

Unit name – We are software developers

- develop an educational computer game using selection and repetition
- understand and use variables
- start to debug computer programs

Unit name – We are makers

- develop an educational computer game using selection and repetition
- understand and use variables
- start to debug computer programs

Unit name – We are musicians

- play music using virtual instruments
- compose or edit tunes using the piano roll (pitch and duration) tool
- perform electronic music using prerecorded loops, and create their own loop

Unit name – We are bloggers

- become familiar with blogs as a medium and a genre of writing
- create a sequence of blog posts on a theme
- incorporate additional media

Unit name – We are artists

- become familiar with the tools and techniques of a vector graphics package
- develop an understanding of turtle graphics
- experiment with the tools available, refining and developing their work as they apply their own criteria to evaluate it and receive feedback from their peers

Unit name – We are meteorologists

- use computer-based data logging to automate the recording of some weather data
- use spreadsheets to create charts
- analyse data, explore inconsistencies in data and make predictions

Year 5

Unit name – We are game developers

- create original artwork and sound for a game

- design and create a computer program for a computer game, which uses sequence, selection, repetition and variables
- detect and correct errors in their computer game

Unit name – We are cryptographers

- create original artwork and sound for a game
- design and create a computer program for a computer game, which uses sequence, selection, repetition and variables
- detect and correct errors in their computer game

Unit name – We are architects

- understand the work of architects, designers and engineers working in 3-D
- develop familiarity with a simple CAD (computer-aided design) tool
- develop spatial awareness by exploring and experimenting with a 3-D virtual environment

Unit name – We are web developers

- what the source code for a web page looks like, and how it can be edited
- how a website can be structured
- how to add content to a web page.

Unit name – We are adventure gamers

- to add and edit images in a presentation
- to use hyperlinks for navigation between the slides of a presentation
- to record and add audio narration to a presentation

Unit name – We are VR designers

- create 360° photosphere images
- link physical objects to digital content using QR codes
- create their own VR scene

Year 6

Unit name – We are toy makers

- to plan a complex project by decomposing it into smaller parts
- to work with physical components of a system
- how to design and write a program for an embedded system

Unit name – We are computational thinkers

- understand how some key algorithms can be expressed as programs
- understand that some algorithms are more efficient than others for the same problem
- understand common algorithms for searching and sorting a list.

Unit name – We are publishers

- write and review content
- source digital media while demonstrating safe, respectful and responsible use
- design and produce a high-quality print document.

Unit name – We are connected

- how to argue their point effectively, supporting their views with sources
- how to counter someone else's argument while showing respect and tolerance
- how to judge the reliability of an online source

Unit name – We are advertisers

- storyboard an effective advert for a cause

- work collaboratively to shoot original footage and source additional content
- acknowledge intellectual property rights

Unit name – We are AI developers

- how speech recognition works
- how a neural net recognises images and how to train a neural net to classify images
- to train a machine learning system to identify sentiments