Mastering Computing at Wellstead

r

Becoming Digitally Literate

Key Skills: Children use explore time to use technology safely and responsibly including discussing technology around them; controlling programmable devices; using ipads and a range of apps.

1

Autumn 1- Technology around us

Technology around us

recognise common uses of information technology in and beyond school

Autumn 2- What's outside our window?

Photography- use the ipads to take photos of the outside.

Art- use the ipads to create own pictures and images of what is seen outside.

use technology purposefully to **create**, organise, store, **manipulate** and retrieve digital content

Spring 1 - Adventures of Percy the Park Keeper

Beebots- use of the beebots to programme routes for Percy to get round his park.

Understand what algorithms are
Create and debug simple programs
Use logical reasoning to predict the behaviour of simple programs

Spring 2- It's a Queen's life

Grouping Data- use data group program to group data about royalty.

use technology purposefully to create, organise, store, manipulate and retrieve digital content

Summer 1- Castle Capers

animations- use the ipads to create animations of some form of castle caper

Understand what algorithms
Create and debug simple programs
Use logical reasoning to predict the behaviour of simple programs

Summer 2- Island Hopping

Scratch Jnr- use Scratch Junior to move a boat / plane (or any vehicle) on screen.

Understand what algorithms
Create and debug simple programs
Use logical reasoning to predict the behaviour of simple programs

2

Autumn 1- London's Burning

Info Tech around us- chn will learn about what technology is. What computers are and the beginnings of how they communicate with each other, e.g. networks.

recognise common uses of information technology beyond school

Autumn 2- Where do I live?

Animation- use the ipads to create animated stories of the Great Fire of London burning.

Podcasting- use the ipads to create podcasts of the event. Maybe interview eye witnesses etc.

use technology purposefully to create, organise, store, manipulate and retrieve digital content

Spring 1 - Africa

Making music- use of the ipads to create musical compositions using loopimal app.

Continue looking at musical rhythms on the chrome music lab.

use technology purposefully to create, organise, store, manipulate and retrieve digital content

Spring 2- Lady with the Lamp

Creating lamps/light up pictures- *use the crumble boards to create a lamp (or picture of) for Florence Nightingale.*

understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. create and debug simple programs

Summer 1- Titanic

Scratch game- use scratch jnr to create a program where the children have to guide titanic around the icebergs.

understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions create and debug simple programs

Summer 2- Plants

Digital photography- use ipads to take pictures of flowers and use these images to create collages using filters.

use technology purposefully to create, organise, store, manipulate and retrieve digital content

Animation- use ipads to create animations of flowers growing- journey from seed to flower.

use technology purposefully to create, organise, store, manipulate and retrieve digital content

3

Autumn 1- Stone Age to Iron Age

Connecting Computers

understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration

Autumn 2- Step into Narnia

Desktop Publishing- chn to use google slides/docs to produce a presentation about Narnia or a character from Narnia.

use technology purposefully to create, organise, store, manipulate and retrieve digital content

Spring 1 - Vive la France!

Making music- use the BBC Microbits to make music.

use sequence and various forms of input and output. understand what algorithms are; how they are implemented as programs on digital devices

Spring 2- Robots

Oh Bot- *Use the Oh Bot software to program a robot head to do a variety of tasks (sequencing and repetition)*

use sequence, and repetition in programs; work with variables and various forms of input and output.

Summer 1- How to grow your dragon

Branching databases- chn to create a branching database to sort and classify the dragons from how to train your dragon

Use software (including internet services) on a digital devices to create a content that accomplish given goals, including collecting, and presenting data and information

Summer 2- Roman Invasion

Events and actions- use Scratch 3.0 to learn how to move a sprite in 4 directions. Create a program to guide a celt through the maze of invading romans.

Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

4

Autumn 1- Rivers

Photo editing- use paint on chromebooks to edit and manipulate images of rivers.

Select, use, and combine a variety of software (including internet services) on a range of digital devices to design and create content.

Autumn 2- Ancient Egyptians

Tomb alarms - Use the crumble boards and buzzers/lights to create a tomb alarm (run alongside DT unit of work)

use sequence, selection, and repetition in programs; work with variables and various forms of input and output

Spring 1 - Ice Trap!

Audio editing - Use a music software program to create a musical score that represents to polar wastelands and all the animals that live there and in the seas surrounding.

use technology purposefully to create, organise, store, manipulate and retrieve digital content

Spring 2- Anglo Saxons

Oh Bot- *Use the Oh Bot software to program a robot head to do a variety of tasks (sequencing, repetition, use of variables)*

use sequence, and repetition in programs; work with variables and various forms of input and output.

Summer 1- Save the Planet

Data Logging- using BBC Microbits to log data.

design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems
use sequence, selection, and repetition in programs; work with variables and various forms of input and output

Summer 2- Vikings

3D drawing and design- Create Viking Jewelry that can be then 3D printed and worn! .

select, use and combine a variety of software to design and create content that accomplish given goals.

5

Autumn 1- All aboard!

Sharing Information- Networks and how they share information.

Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration

Autumn 2- Ancient Greeks

Oh Bot!- Use the Oh Bot software to program a robot head to do a variety of tasks (sequencing, repetition, use of variables)

use sequence, selection, and repetition in programs; work with variables and various forms of input and output

Spring 1 - Beneath Our Feet

Flat file databases - create databases of volcanoes and earthquakes from around the world.

use search technologies effectively, use and combine a variety of software (including internet services) to create content that accomplish given goals, including collecting, analysing, evaluating, and presenting data and information

Spring 2- Extreme Earth

Crumble boards- Use the crumble boards to create moving dioramas of earthly extremes e.g. earthquakes, volcanoes etc.

use sequence, selection, and repetition in programs; work with variables and various forms of input and output

Summer 1- Out of this World

Selection in Quizzes- Children to use scratch to create a quiz with multiple options per question. Incorporate a score variable.

design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
use sequence, selection, and repetition in programs; work with variables and various forms of input and output.

Summer 2- Mayan Mayhem

Video Editing- Children to learn how to video and edit a report about the Mayans. Learn to add titles, fly-in info boxes, transitions, music, etc.

Select, use, and combine a variety of software (including internet services) 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

6

Autumn 1- Stranded

Oh Bot!- *Use the Oh Bot software to program a robot head to do a variety of tasks (sequencing, repetition, use of variables)*

understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions create and debug simple programs

use sequence, selection, and repetition in programs; work with variables and various forms of input and output

Autumn 2- Power and Glory

Binary Coding- children learn about binary coding and how computers use the language of binary.

Website design-
Children learn how to use google sites to create a website about the Monarchs learnt about in topic

select, use and combine a variety of software (including internet services) to design and create content to accomplish given goals, including collecting, analysing, evaluating, and presenting data and information.

Spring 1 - Mary Rose

Video Editing- Children to create videos of the Mary Rose: add titles, fly-in info boxes, transitions, music, etc

Select, use, and combine a variety of software (including internet services) 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

Spring 2- Fantastic Beasts and where to find them

3D drawing and design- Use a 3D drawing package to create a fantastic beast / the beast's eye!

select, use and combine a variety of software (including internet services) on a range of digital devices to design and create content that accomplish given goals.

Summer 1- All the fun at the fair

Crumble boards- Use the crumble boards to control the fairground rides created in DT.

understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions create and debug simple programs

use sequence, selection, and repetition in programs; work with variables and various forms of input and output

Summer 2- Wonderful world

Crumble boards- Strictly come Robotics! Children work in groups to create a robot that can compete in a dance off. Include wheeled movement and service for arm/leg movement too.

understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions create and debug simple programs

use sequence, selection, and repetition in programs; work with variables and various forms of input and output