COMPUTING CURRICULUM MAP

FENS PRIMARY SCHOOL

YEAR 6

Year 6 - Knowsley SOW Google Docs

Key Skills

* To be able to log on to the network without support.
* To be able to use the mouse.
* To recognize the position of keys on the Qwerty keyboard.

Computing Science

Able to turn a more complex programming task into an algorithm by identifying the important aspects of the task (abstraction) and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs. Test and debug their program using logical methods to identify the cause of bugs, demonstrating a systematic approach to try to identify a particular line of code causing a problem.
Translate algorithms that include sequence, selection and repetition. Understanding of variables in coding, outputs such as sound and movement, inputs from the user of the program such as button clicks and the value of functions. Understand and can explain in some depth the difference between the internet and the World Wide Web. WAN and LAN are and can describe how they access the internet in school.

Information Technology

Readily apply filters when searching for digital content. Can explain in detail how credible a webpage is and the information it contains. Use critical thinking skills in everyday use of online communication. Make clear connections to the audience when designing and creating digital content. Design and create blogs. Use criteria to evaluate the quality of digital solutions.

Digital Literacy

Demonstrate the safe and respectful use of a range of different technologies and online services. They identify more discreet inappropriate behaviours through developing critical thinking. Recognise the value in preserving their privacy when online for their own and other people's safety.

Y6 Clubs – Digital Leaders. TV Club. Coding Club Animation.

YEAR 5

Year 5 - Purple Mash – Knowsley SOW (Google Docs)

Key Skills

* To be able to log on to the network without support.
* To be able to use the mouse.
* To recognize the position of keys on the Qwerty keyboard.

Computing Science

Attempt to turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts. Are able to test and debug programs and can use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code. Translate algorithms that include sequence, selection and repetition into code with increasing ease. Combining sequence, selection and repetition with other coding structures to achieve their algorithm design. Understand the value of computer networks but are also aware of the main dangers. Recognise what personal information is and can explain how this can be kept safe. Children can select the most appropriate form of online communications contingent on audience and digital content.

Information Technology

Search with greater complexity for digital content when using a search engine. They are able to explain in some detail how credible a webpage is and the information it contains. Are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution.

Digital Literacy

A secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. Implicitly relate appropriate online behaviour to the right to personal privacy and mental wellbeing.

Y5 Clubs – Digital Leaders. TV Club. Coding Club Animation.

UPPER KEY STAGE 2

YEAR 4

Year 4 - Purple Mash

Key Skills

* To be able to log on to the network without support.
* To be able to use the mouse.
* To recognize the position of keys on the Qwerty keyboard.

Computing Science

When turning a real-life situation into an algorithm, the children's design shows that they are thinking of the required task and how to accomplish this in code using coding structures for selection and repetition. Children make more intuitive attempts to debug their own programs. Include timers to achieve repetition effects. Including variables to achieve the effects that they design in their programs. As well as understanding how variables can be used to store information. Children recognise the main component parts of hardware which allow computers to join and form a network. Their ability to understand the online safety implications associated with the ways the Internet can be used to provide different methods of communication is improving.

Information Technology

Understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level. Make improvements to digital solutions based on feedback. Make informed software choices when presenting information and data.

Digital Literacy

Can explore key concepts relating to online safety using concept mapping. Can help others to understand the importance of online safety. Children know a range of ways of reporting inappropriate content and contact.

Y4 Clubs – Digital Leaders. TV club. Animation. Coding Club.

YEAR 3

Year 3 - Purple Mash

Key Skills

* To be able to log on to the network without support.
* To be able to use the mouse.
* To recognize the position of keys on the Qwerty keyboard.

Computing Science

Children can turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts.
repetition and use of timers. They make good attempts to 'step through' more complex code in order to identify errors in algorithms and can correct this.

Information Technology

Can carry out simple searches to retrieve digital content using nternet-wide search engines.
Collect, analyse, evaluate and present data and information using a selection of software

Digital Literacy

Demonstrate the importance of having a secure password. Understand the importance of staying safe and the importance of their conduct when using familiar communication tools. Know more than one way to report unacceptable content and contact.

Clubs – Digital Leaders. Coding Club. Animation.

LOWER KEY STAGE 2

YEAR 2

Year 2 - Purple Mash

Key Skills

* To be able to log on to the network without support.
* To be able to use the mouse.
* To recognize the position of keys on the Qwerty keyboard.

Computing Science

Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that a computer program turns an algorithm into code that the computer can understand.

Information Technology

Children demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches. Children are able to edit more complex digital data such as music compositions within 2Sequence. Children are confident when creating, naming, saving and retrieving content. Children use a range of media in their digital content including photos, text and sound.

Digital Literacy

Children can effectively retrieve relevant, purposeful digital content using a search engine. They can apply their learning of effective searching beyond the classroom. They can share this knowledge. Children make links between technology they see around them, coding and multimedia work they do in school.
Children know the implications of inappropriate online searches. Children begin to understand how things are shared electronically.

Clubs – Animation. Coding club.

YEAR 1

Year 1 - Purple Mash

Key Skills

* To be able to log onto the network with some support.
* To be able to use the mouse.
* To begin to recognize the keys on the Qwerty keyboard.

Computing Science

Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that a computer program turns an algorithm into code that the computer can understand.

Information Technology

Children are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count.

Digital Literacy

Children understand what is meant by technology and can identify a variety of examples both in and out of school. They can make a distinction between objects that use modern technology and those that do not e.g. a microwave.

Clubs-

KEY STAGE 1

EYFS NURSERY & RECEPTION

Emphasis on exploration in the Early Years with emphasis on Computational Thinking – Barefoot and Knowsley.

Key Skills

* To be able to log onto the computer with support.
* To be able to use the mouse.

EYFS EDUCATIONAL VISITS
SUMMERHILL
HALL HILL FARM

ELG: Expressive Arts and Design: • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

ELG: Personal, Social and Emotional: Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Explain the reasons for rules, know right from wrong and try to behave accordingly.

'To inspire, challenge and encourage pupils, thus equipping them with the knowledge, skills and understanding to answer challenging questions, explore different religious beliefs, values and traditions and develop a more rigorous understanding of the numerous religious traditions, beliefs and practices that are followed in our multi-cultural society.'