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Year 4. Medium Term Planning

Digital Literacy

Underlines the knowledge and skills relating to **online safety** and technology in society.

NC End Point:

Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Be discerning in evaluating digital content.

Understand the opportunities [networks] offer for communication and collaboration.

Computer Science

Underlines the knowledge and skills relating to **computational thinking, coding, algorithms and networks**.

NC End Point:

Appreciate how [search] results are selected and ranked.

Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web.

Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

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

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

Information Technology

underlines the knowledge and skills relating to **digital communication, creating multimedia content and data representation/handling**.

NC End Point:

Use search technologies effectively.

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.

Byte Size & Fun

ensure the children have the **core basic skills** to use multiple devices, this is designed to **promote independence** and to have fun!

Year 4. Mandatory Skills:

I can label the different types of input connections on devices.

I can explain common file types.

Autumn 1

Key Vocabulary:

Reputation
 online Bullying Copyright
 Self Image
 Identity

[My Online Life](#)

(Digital Literacy)

This activity takes place over the course of the term. It covers all the DFE

Trust Risks Profile Password Private	statutory requirements for digital literacy and online safety.
Learning Sequence: Knowsley to update planning Lesson 1: (DL) I can explain how my online identity can be different to the identity I present in real life. (DL) Knowing this, I can describe the right decisions about how I interact with others and how others perceive me. (DL) I can explain that others online can pretend to be me or other people, including my friends. (DL) I can suggest reasons why they might do this. Lesson 2: (DL) I can describe how others can find out information by looking online. (DL) I can explain ways that some of the information about me online could have been created, copied or shared by others. Lesson 3: (DL) I can describe strategies for safe and fun experiences in a range of online social environments. (DL) I can give examples of how to be respectful to others online. Lesson 4: (DL) I can identify some online technologies where bullying might take place. I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat). (DL) I can explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others felt about them (their reputation). Lesson 5: (DL) I can analyse information and differentiate between opinions, beliefs and facts. I understand what criteria have to be met before something is a fact. (DL) I can describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites). (DL) I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers, in app purchases, pop ups) and can recognise some of these when they appear online. (DL) I can explain that some people I meet online (e.g. through social media) may be computer programmes pretending to be real people. (DL) I can explain why lots of people sharing the same opinions or beliefs does not make those opinions true. Lesson 6: (DL) I can explain how using technology can distract me from other things I might do or should be doing. (DL) I can identify times or situations when I might need to limit the amount of time I use technology. (DL) I can suggest strategies to help me limit this time. Lesson 7: (DL) I can explain what a strong password is. (DL) I can describe strategies for keeping my personal information private, depending on context. (DL) I can explain that others online can pretend to be me or other people, including my friends. (DL) I can suggest reasons why they might do this. (DL) I can explain how internet use can be monitored. Lesson 8: (DL) When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. (DL) I can give some simple examples.	
Autumn 2	Dinosaurs (Information Technology) In this activity the children will make their own blockbuster. They will learn all about filming techniques and story telling skills.
Key Vocabulary: Technology Shot Green Screen Edit Tech Scene Special Effects Save Film Movie Storyboard Load Camera Director Layers File Text Actor Close up Software Font Digital Sound Quality Chroma-Key	

Learning Sequence:

Lesson 1: (IT) To add text to a document and apply text formatting. (IT) To film using the camera on an iPad or similar device (IT) To film high-quality film shots.

Lesson 2: (IT) To film more high-quality shots. (IT) To use a selection of filming and movie-making techniques. (IT) To direct an actor to give a great performance.

Lesson 3: (IT) To film high-quality shots (IT) To edit shots into a scene (IT) To use editing software to add effects to your scene.

Lesson 4: (IT) To Explain what a film storyboard is. (IT) To create a storyboard for my film. (IT) To explain how I will film the shots in my storyboard.

Lesson 5: (IT) To film and act against a green screen. (IT) To use green screen software to add special effects to my film. (IT) To film high-quality shots to be used in my finished film.

Lesson 6: (IT) To edit shots together to create a movie trailer. (IT) To use green screen software to add special effects to my film. (IT) To choose titles, filters and soundtracks to make my movie trailer look more professional. (IT) To review my movie trailer and suggest improvements.

Spring 1 and 2

Key Vocabulary:

Fake News
Reporting
Sceptical
Verify
Media

Fake or Real?

(Digital Literacy)

Fake news is serious concern and in this activity children will learn how they can sort the truth /from the lies. Making videos to show.

Safer internet day learning.

Learning Sequence:

Knowsley to update planning

Lesson 1: (DL) I can explain what Fake News is. (DL) I can explain how social media is used to help Fake News Spread.

Lesson 2: (DL) I can analyse data and make informed judgements about the validity of that data.

Lesson 3: (DL) I can use a search engine and I am aware that not everything I read online is correct. (DL) I can identify Fake News Stories.

Lesson 4 and 5: (DL) I can evaluate information presented to me to make informed choices about what is Fake News.

Lesson 6: (DL) I can be critical in my analysis of data. (DL) I can explain what Fake News is.

Summer 1

Key Vocabulary:

Website
Conditional
Run
Program
Loop
Command
Block
Sprite

Hour of Code

(Computer Science)

The class will cover Hour of Code work through various challenges.

Key Vocabulary:

Hardware
Video Game
sprite
Password
Designer
Developer
Software
Command
Block
Online

Games Designer

(Computer Science)

The children will learn all about the career of games designer. They will play games, write reviews and then design and prototype their own game.

Account Age Rating Input repeat Command Graphic PEGI Output Loop Forever Upload App Store Digital Device Variable Sensing QR Code Design Plan Username Value	
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Learning Sequence:

Hour of Code

Lesson1: (CS) To understand and create a simple algorithm (CS) To understand the term coding and what programming languages are used for. (DL) To be able to navigate the Hour of Code website. (IT) To open and use various creative tools within a digital journal.
Outcome: (CS) I can design an algorithm to simulate a real-life situation.

Lesson 2: (CS) To understand that repeat commands (loops) improve the program's efficiency and can save time when writing code. (CS) To use repeat commands (loops) when creating programs. (CS) To use a nested repeat command (loop).
Outcome: (CS) I can design and write a program for a given purpose, including specific programming features.

Lesson 3: (DL & IT) To understand the term "AI" (artificial intelligence). (CS) To understand the term "conditional" means that a choice is being made in a program. (CS) To use conditional statements such as "When" and "IF" in a program. Outcome: (CS) I can solve an open-ended problem by breaking it up into smaller parts. Lesson 4: (CS) To understand the term "bug". (CS) To understand that "debugging" means to find and fix errors or mistakes in programs. (CS) To continue to use conditional statements such as "IF" in programs.
Outcome: (CS) I can test existing programs to see how they could be improved.

Games Designer

Lesson1: (DL) To be able to explain the purpose of age restrictions for video games. (DL) To be able to identify the different age ratings for video games in the UK. (DL) To be able to explain why it is important to follow age restrictions for video games.
Outcome: (IT) I can improve the quality and presentation of my work using editing and formatting techniques. (DL) I understand the impact technology can have on my health, well-being and lifestyle. (Health well being)

Lesson 2: (CS & IT) To be able to define the term "video game design." (CS) To be able to identify the different stages of the video game development process. (CS & IT) To be able to explain the role of the video game designer. (CS) To understand inputs and outputs on a digital device.
Outcome: (CS) I can label the different types of input connections on devices.

Lesson 3: (IT) To be able to use a digital art program to create game graphics. (IT) To be able to design characters, backgrounds, and objects that are appropriate for their target audience. (IT) To be able to export their game graphics in a format that is compatible with Scratch. (IT) To label various digital file types.
Outcome: (IT) I can explain common file types.

Lesson 4: (DL) To create secure usernames and passwords for an online account. (DL) To be aware of the risks associated with sharing personal information such as passwords. (CS) To be able to import and use game graphics in their Scratch programs.
Outcome: (IT) I can create with technology. E.g. Video, digital graphics, animation, 3D.

Lesson 5: (DL) To sign into an online account. (CS) To be able to use Scratch and start to create a simple hero versus villain game. (CS) To be able to use block commands to control the movement and behaviour of their sprites. (CS) To be able to create a simple game loop.
Outcome: (CS) I can solve an open-ended problem by breaking it up into smaller parts.

Lesson 6: (CS) To create and manipulate game variables. (CS) To use repeat commands and IF/Then statements (CS) To be able to add finishing touches to their game, such as sound effects and music. (DL & CS) To be able to share their game with others.
Outcome: (CS) I can design and write a program for a given purpose, including specific programming features. (CS) I can test existing programs to see how they could be improved.

Summer 2

Endangered Animals

(Information Technology)

Key Vocabulary:

iPad / Computer Screenshot
Download
Presentation
Illustration
Creative commons
AI (Artificial Intelligence)
Copyright
Digital Device
QR Code
Keyword
Font
App
Application
Video (Editing)
Voice Over
Social Media
Technology
Audio Media
Digital Media
Search Engine
Computer Generated Browser
Save/export Emoji

The children will learn online research skills, create illustrations and posters to raise awareness of our planet's endangered animals. The children will also get involved with environmental campaigns. They will make a class film about how making small changes can help e.g. air pollution and turning off your engines.

Learning Sequence:

Lesson1: (IT) To add an image and text to a document. (DL) To search for images using the 'copyright free' tool. (DL) To understand some images online might be computer generated.

Lesson 2: (IT) To use Google Earth to explore different locations and environments. (IT) To save screenshots and insert them into a document. (IT) To search for and add relevant emojis to a document.

Lesson 3: (DL) To explore types of images and graphics for use online. (IT) To create a mood board and brainstorm ideas. (IT) To photograph work and insert it into a document.

Lesson 4: (IT & DL) To create a graphic for social media. (IT) To use various tools within an illustration/paint application. (IT) To export in a relevant image format.

Lesson 5: (IT) To write a short script. (IT) To import an image into a video editing application. (IT) To record narration and add music to an image/video clip.