

National Curriculum objectives

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

Literacy links

- Pupils should be taught to: draft and write by: in narratives, creating settings, characters and plot;
- Pupils should be taught to: proof-read for spelling and punctuation errors.

History

- The Roman Empire and its impact on Britain.

Education for a Connected World links**Managing online information**

- I can use key phrases in search engines;
- I can use search technologies effectively.

Copyright and ownership

- I can explain why copying someone else's work from the internet without permission can cause problems;
- I can give examples of what those problems might be;
- 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;
- I can give some simple examples;
- I can give examples of content that is permitted to be reused;
- I can demonstrate the use of search tools to find and access online content which can be reused by others.

To begin this unit, the children should have already learnt:Year 1

Digital devices – and specific programs – can be used to draw and create media: we can draw in different ways and use various tools to create unique effects. Size and colour can also be manipulated for a purpose.

Year 2

Digital devices can be used to take photographs and edit them after capture; this means that not all images children see are real and they will begin to recognise what features might be changed in photographs they encounter.

The learning in this unit will prepare the children to learn these things in the future:Year 4 – Audio recording

An input device (microphone) and output devices (speaker or headphones) are required to work with sound digitally. Creators have ownership of digital audio and there are copyright implications of duplicating the work of others.

Year 5

Video means recording, reproducing and visualising of visual images (often in conjunction with audio). Video is made up of a sequence of images shown in quick succession, giving the impression of movement. Many different devices can be used to record, edit and playback video and sound. Theme, setting, characters, colour, sound and dialogue are all important features of video.

Year 6

A web page is a hypertext document that is a part of the World Wide Web. Websites are a collection of web pages about the same topic. They can be found using browsers. Websites are created for a chosen purpose and must adhere to copyright and fair use of media rules.

<p>Key Enquiry Question</p> <p>Can a picture actually move? What do you predict this (flipbook) will look like as an animation? What do you notice about each consecutive frame in a stop-frame animation? What do you like about your animation? What do you think is most successful about your animation? How might this (animation) be improved? Why did you this (media) to your animation?</p>	<p>The Big Idea:</p> <p>Stop-frame animation is comprised of a series of photographs of objects, with small movements of the objects creating the illusion the objects are actually moving. Animations can be edited and other media, such as text, can be added to improve the finished outcome.</p>
<p>To achieve ARE, pupils will need to be secure in the following knowledge:</p>	
<p>By the end of this unit, children will know:</p> <ul style="list-style-type: none"> • An animation is made up of a sequence of images; • A capturing device needs to be in a fixed position; • Smaller movements create a smoother animation; • How adding other media to an animation has an impact; • A project must be exported so it can be shared. 	<p>Vocabulary:</p> <p>Tool; erase; fill; undo; click; drag; save; icon; colour (introduced in Y1).</p> <p>Photography; editing; digital; software; subject (introduced in Y2).</p> <p>Animation; frame; illusion; sequence; onion skinning; playback; story; audio; consistency; text.</p>
<p>By the end of this unit, children will be able to do:</p> <ul style="list-style-type: none"> • Set up the work area with awareness of what will be captured; • Capture an image; • Plan an animation using a storyboard; • Use the onion-skinning tool to review a subject's position; • Move a subject between captures; • Review a captured sequence of frames as an animation; • Remove frames to improve an animation; • Add media to enhance an animation; • Evaluate a completed animation. 	<p>Useful Resources:</p> <p>Online stop-motion software, <i>iMotion</i>.</p> <p>Online training courses</p> <p>Raspberry Pi online training courses</p>

COMPUTING: CREATING MEDIA KNOWLEDGE ORGANISER

Overview

Animation



- Animation is a technique used to make objects and drawings appear as if they are moving.
- Stop-frame animation is a technique in which many photographs are taken of objects, with small movements in between.
- When the images are quickly shown together, the objects appear to move! (They are animated).
- There are many stop-frame animation apps and programs, for example iMotion, Stop Motion Studio and Clayframes.

Introduction to Animation

Animation is a technique used to make objects and drawings appear to move.



Animations have been around for many years – even before computers! Stop-frame animations work in the following way:

- A number of pictures are drawn or taken of an object or picture.
- In each drawing or picture, the object has been moved slightly. Each picture is called a frame.
- When the frames are shown in a sequence, an illusion is created where it looks as though the object is moving!



Lots of movies and TV programmes are animated. These include cartoons, and films like *Wallace and Grommit* and *Chicken Run*.



- In recent years, lots of stop-frame apps and programs have been released, which can be used to make homemade animations!

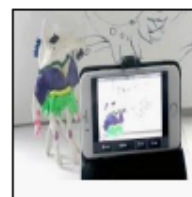
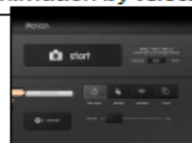
Creating a Basic Animation

iMotion is one of many apps that you can use to create animation. You can create a new animation by selecting the 'new movie' option.



Setting Up

- Select 'manual.' Type in the movie title.
- Tap 'Start'. Turn on 'onion skinning'
- Make sure that your object/ drawing is in the frame (can be seen by the camera).



Creating the Animation

- Take a picture of your object/ drawing (press 'capture').
- Change the object/drawing very slightly. If drawing, keep a faint line of the original drawing to show you where to go next (onion skinning). Capture again.
- Repeat the process lots of times.

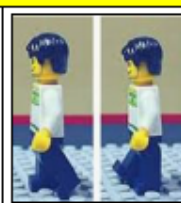


Playback and Saving: When you are finished, press 'stop' and then 'stop' again. Your animation will begin playing. You can change the speed (frames per second). Press 'export' to save your animation.

More Complex Animations



Storyboards can be used to plan animations. They help you to plan your different frames.



-Consistency is important. In each frame, we need to think about which things stay the same (e.g. background), and which things change.



-Add music by tapping 'audio.' You can add in soundtracks, your own music, or sound effects. Tap + to select the track that you want. Carefully choose when the audio starts/ stops.



-You can also add text into your animation. Tap on the frame that you want to enter text into. Tap T for text. You can choose different fonts, and select where you want the text to appear.

Important Vocabulary

Animation

Frame

Illusion

Sequence

Onion Skinning

Playback

Storyboard

Audio

Consistency

Text