

Year 4. Animation

Prior learning links:

This is a new unit of learning for the children, although they may have discovered some of the software packages used to create animation through their own personal exploration of the Purple Mash suite of programs. It has been included fairly early on in our ks2 curriculum, as some knowledge of how to use these animation software packages could provide the children with potentially useful additional skills for future projects or topics in school. After completing this unit, a teacher may be able to ask their classes to create an animation of a volcano erupting or a plant growing, for example. The software is very easy to use, and the children always really enjoy using it. Teachers will need to ensure that children make regular use of the ‘onion skinning’ effect between their frames – this will allow them to have a frame of reference for their animation, and to move their character or object a small amount on their next frame. The software will allow the children to save their animations as a .gif file, which can be used in other projects.

Adaptive teaching – Recommended tried and tested practise in these lessons:

Due to the nature of Computing lessons and the common ‘firefighting’ required in lessons with technical issues or children who are individually confused over what may be considered small stumbling blocks, it is recommended that teachers put time and effort into reinforcing the use of school-wide learning ethos and systems (for example, the use of the 4B’s – brain, board, buddy, boss) to encourage children to try to solve their problems in the right way rather than going straight to the teacher, or lessons will quickly become unmanageable. It is also recommended to follow our school’s use of the Rosenshine model of mastery teaching strategy and teach lessons in a series of stages, with short, simple tasks being set, and children who finish early can be given encouragement to support and ‘lifeguard’ other students. This has twofold benefits; the process of teaching others cements and secures pupils’ own mastery as well as ensuring the teacher isn’t overwhelmed with personal requests for help. If one-to-one support is unavailable for high need children, it is a good idea to make sure these children are sat next to or near a higher ability student who may act as peer support for them, and these children are monitored carefully throughout lessons to ensure they stay on task and understand each objective given. Ensure that any hardware support that is required for individual’s SEND requirements are adjusted appropriately and are tied to those students’ individual log ins (e.g. Zoom tools or screen tints for students with visual impairments etc). Teachers should have a knowledge of Pupil Premium children, particularly those who have been seen to struggle in Computing lessons, and these children should be monitored alongside those with SEND during lesson time to help ensure they access lessons along with the rest of the class.

Knowledge covered:

NC	Ladders Objectives
(2.1) Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	
(2.2) Use sequence, selection, and repetition in programs; work with variables and various forms of input and output	
(2.3) Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	
(2.4) 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.	
(2.5) Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	
(2.6) 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.	Y4 - IT1 - I can use some of the more advanced features of applications (not just change font) to present my ideas and work clearly. Y4 - IT2 - I can combine more than one sources of information (eg text, picture, video, animation, sound) in my work. Y4 - IT3 - I can evaluate my digital work to see if it has met the target or goal set for me. Y4 - IT4 (KPI) - I can use an appropriate search engine effectively and judge if the information is useful to me. Y4 - IT5 - I can use software to collect, present and analyse data appropriately (e.g. to make a chart). Y4 - IT6 - I can create a presentation to convey meaning and edit it if necessary (e.g. on PowerPoint/Sway/Keynote/Other).

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

Medium Term Lesson Plan:

Lesson 1	Animating an Object L.I I can decide what makes a good, animated film or cartoon and discuss favourite animations. L.I I can learn how animations are created by hand. L.I I can find out how 2Animate animations can be created in a similar way using technology. Y4 – IT1 Y4 – IT2 Y4 – IT3 Y4 – IT4 (KPI) Y4 – IT5 Y4 – IT6	S.C: I have put together a simple animation using paper to create a flick book. I understand animation frames. I have made a simple animation using 2Animate.	<u>Key Questions</u> *Prior knowledge* Where have you seen stop-frame animation before? What makes animation a form of a 'trick' on the eyes? What are your favourite animated films? Which is more time-consuming – creating a real-world animation using photographs, drawings or computer software?	Introduce new vocabulary for this unit of work. Explain what animation is and the forms it can take. Activity 1: Make a flick book (post its) Activity 2: Using 2animate to create a simple animation of a face. Activity 3: Create an animation linked to your topic. Extension: Think about how to create a 'pause' in your animation.
Lesson 2	2animate tools L.I I can understand what onion skinning is in animation L.I I can add backgrounds and sounds to animations Y4 – IT1 Y4 – IT2 Y4 – IT3 Y4 – IT4 (KPI) Y4 – IT5 Y4 – IT6	S.C: I know what the Onion Skin tool does in animation. I can use the Onion Skin tool to create an animated image. I can use backgrounds and sounds to make more complex and imaginative animations.	<u>Key Questions</u> *Prior knowledge* What new words did we learn last lesson? If we want to make an object appear to move between our frames, how can we know where on the frame our objects were if we've just got a blank frame to work with? Do we just have to guess their size, shape and position? (When looking at the 'squishing playdough' video) How did the animator make it look as if the finger was moving?	New vocab explained – onion skinning Remind children how to copy frames, add/removing frames, running animations + changing speeds. Activity 1: Show how onion skinning can be used to make an object appear as if it is moving. Activity 2: Enhancing animations with backgrounds. Activity 3: Adding sounds to your animation. Activity 4: Try to create your own animation using what you have just learned, linked to your topic. Activity Extension: Create a stick person dancing across a dancefloor, with music.
Lesson 3	Stop Motion Animation L.I I understand what 'stop motion' animation is and how it works. I can share animation the class blog. Y4 – IT1 Y4 – IT2 Y4 – IT3 Y4 – IT4 (KPI) Y4 – IT5 Y4 – IT6	S.C: I know what 'stop motion' animation is and how it is created. I have used ideas from existing 'stop motion' films to recreate my own animation. I have shared my animations and commented on other's work using display boards and blogs in Purple Mash.	<u>Key Questions</u> *Prior knowledge* What new words did we learn last lesson Do you remember what 'onion skinning' is? What skills do we now have with animation software? Do you know the Wallace and Gromit animations were created?	Explain the term 'stop motion' animation in detail. Activity 1: Create a 'cracking contraption' inspired by Wallace and Gromit using 2animate Activity 2: Make a physical contraption using a construction material – LEGO/Plasticene & animate Review learning.

