Animation: Stop Motion Animation

Aim:	Success Criteria:	Resources:
Use a variety of software, on a range of digital devices, to design and create content that accomplish given goals in the context of stop motion animation using a webcam or digital camera and associated software. I can use a camera to create a short stop motion animation film.	I can take still images using a webcam or similar digital device. I can import my own suitable photos to create a stop motion animation. I can change the content of a picture by the correct amount between frames. I can order or sequence frames to create the effect of smooth movement.	**Lesson Pack** Computers/laptops with access to webcam or other digital camera Stop motion software installed. (Several available - see **Adult Guidance**.) Source of photos or resources to create animation. (This will need to be considered in advance - see **Adult Guidance**.)
	Key/New Words: Frame, stop motion, upload, image.	**Preparation:** **Guide to Stop Motion Animation** - as required **Storyboard Activity Sheet** - as required

Prior Learning: Children will have used other animation software and techniques in lessons 1 to 4.

Learning Sequence

	Stop Motion: Introduce this approach to animation. Link to 'Wallace and Gromit', which is likely to be a well-known example of the technique.	
	Behind the Scenes: If there's time, watch some examples of stop motion animation.	
	Stop Motion Software: Model how to use your chosen stop motion software. Demonstrate how pictures can be either taken using a webcam or imported from files. The movie can then be played back, edited and finally enhanced with titles and a soundtrack.	
	Create Your Own Stop Motion Animation: Can children work in pairs to create a stop motion animation? Working in pairs or small groups, children use the **Guide to Stop Motion Activity Sheet** to create their animation. The **Storyboard Activity Sheet** can be used to plan their animation and materials needed. After preparing the images to be used, children then use your chosen stop motion software to edit their animations. See the **Adult Guidance** for further information.	
	Present and Share: Invite children in their pairs to present their finished animations. Before playing the clip (ideally on large screen at the front of the classroom) the children should introduce what it is about and how they made it. Allow other children (the audience) to ask questions or appraise.	

Task*it*

Model*it*: Design a new model character (or set of characters) using modelling clay that can be photographed for a stop motion animation film. Alternatively, design a set or backdrop using cardboard or an open box.

Watch*it*: Watch examples of stop motion animation using models, such as 'Wallace and Gromit'.

Stop Motion Animation Adult Guidance

This lesson provides an opportunity for a third different approach to animation, in this case stop motion animation using photo capture.

Stop motion animation is a technique that involves a series of still photos played quickly to produce the effect of movement and animation. To achieve this, objects in the animation are moved very slightly in between each photograph.

Although self-contained, this lesson can easily be extended into a longer project over several lessons. Model and backdrop making could also make a suitable art or design and technology lesson. It can also be easily themed to fit in with other topic work in your curriculum.

Software and Hardware

There is a range of simple stop motion software widely available (both free and paid) to create animations that you can pick to work with your specific devices.
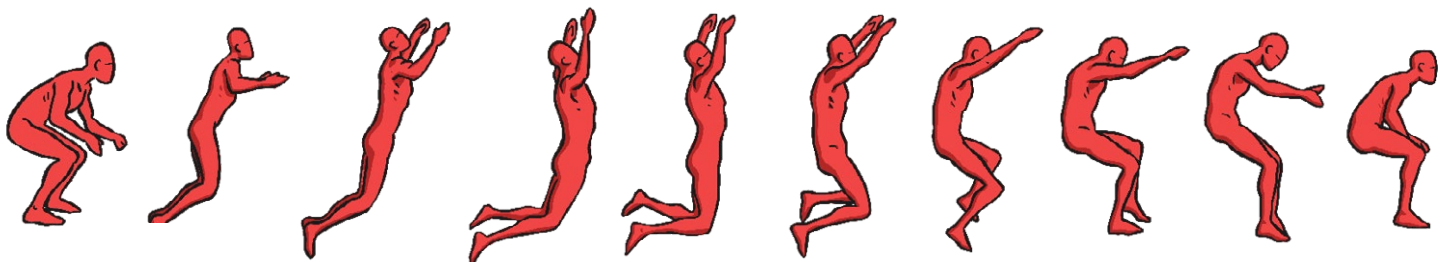
A range of hardware can be used for taking the photographs. Several devices have built-in cameras but a portable webcam is also a good option, as it can be moved around to capture the images. Digital cameras can also be used and the images uploaded.

Children will need a suitable place on your school system to save and access their images.

Photographs

Children will need to take a series of photographs for their stop motion animation (following school guidance on photographs). This could be done in a variety of ways. For example, they could photograph modelling clay models, building bricks or toy figures. These are easy to move between each photograph. They could also use hand-drawn images and then photograph or scan these. Whiteboards are useful here as slight changes can be easily made to the images between each photograph.

A simple animation that can be made is to build a tower or structure using building bricks. After taking photos of each step, the pictures can be edited to make it look like the tower is building itself.

Guide to Stop Motion Animation

There are many different options or approaches to making stop motion animation. Choose which is best for you or which software, hardware and materials you may have access to.

	Plot or Story First try to decide what your animation is going to be about. What is the basic idea? Will you tell a story with a beginning and end or something more random? Maybe just create the effect of something moving, like an everyday object?
	Material for Animating Decide which materials you are going to use for your animation. Ideas of materials that could be used include: modelling clay, cut-out paper or card, pictures cut from old magazines or toy figures. Think about your backdrop and set. Backdrops could be made on card or inside a box. You could use a simple, but effective, piece of material or colourful paper. Will you need any other props or objects in your scene?
	Plan a Storyboard Decide in advance roughly what will happen in your animation. Use a storyboard to plan the scenes but remember each scene will probably need several animation frames. Use sketches and notes to make a good plan.
	Creating Your Set, Props and Characters Draw, build or create anything you need for your animation. Use the **Storyboard Activity Sheet** to make sure you have everything needed before you start working on the animation.
	Choose a Camera Find out what type of camera you are able to use from your teacher. You may have a choice - in which case think about which will work best for capturing your images.
	The Animation Once you have everything set up, take a few photos as initial frames before you start making any movements or adjustments. When you are ready to start moving your character or object, only adjust by a few millimetres each time and aim to take 10-12 frames for each second of animation.
	Finishing Touches Download your images into the stop motion animation software and use the editing tools to complete your animation. You could also add titles or a soundtrack. Remember to save your work.

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