



EYFS UNIT 1 : 'COMPUTATIONAL THINKING'

MAIN I PAD APPS USED : I CAN ANIMATE AND GREEN SCREEN BY DOINK

STEP ONE :

Outcome :

A basic plan (e.g. a 'story map') for an animation based on a particular area of interest or current topic/theme.

Resources :

Show pupils **resource 1 (WAGOLL)**. Also, you might want to have some real life example animations to show (you can find lots of these by doing a search within YouTube).

Main EYFS areas covered (refer to unit assessment sheet for specific learning outcomes):

Understanding the world:

- technology

Communication and language:

- understanding
- speaking
- listening and attention

Personal, social and emotional development:

- being imaginative
- self confidence and awareness

Preparation :

Ask pupils to tell you about some of the animations that they watch and have examples of these ready to show and discuss - these can easily be found on YouTube (e.g. 'Ra Ra the Lion', 'Postman Pat', 'Wallace and Gromit', 'Thomas the Tank Engine'...). You could go in to some basic detail here about how these are made (basically by moving each character bit by bit and taking lots of photographs)!

Instructions :

Pupils help the teacher to produce a **story map** for an animation of their own. This should be based on a particular area of interest or current theme/topic that you are following. Pupils will use this planning to refer to when filming their animations in step two.

Focussed activities :

Teachers could perhaps do this activity with small groups throughout the week. If possible, you should ensure that pupils are grouped with peers that share a common interest to them (you could ask pupils what type of animation they want to do). This child - initiated approach is important, as it will ensure that each group member has the opportunity to express their ideas and also help to keep them engaged throughout the project. Animations could also be based on particular themes/topics that you are covering within class. Also bear in mind what models/characters you have available to use! In the **modelled example (resource 1)**, we had 5 groups altogether. These were;

Group one - "At the Zoo"

Group two - "Dinosaur world"

Group three - "Sea world"

Group four - "In the city"

Group five - "Arctic adventures!"

STEP TWO :

Outcome :

A **stop motion animation**, filmed using the 'I Can Animate' iPad app.

Resources :

'I Can Animate' (iPad app), green backing paper or cloth, toy characters, a space for filming.

Reference resource 2 (blog post) to get a further understanding of the pedagogy behind this unit.

Main EYFS areas covered (refer to unit assessment sheet for specific learning outcomes) :

Mathematics:

- Number
- Shape, Space and Measure

Understanding the world:

- technology
- the world
- people and communities

Communication and language:

- understanding
- speaking
- listening and attention

Personal, social and emotional development:

- being imaginative
- self confidence and awareness

Physical Development:

moving and handling

Expressive Arts and Design

- exploring and using media and materials
- being imaginative

Preparation :

You will need the 'I Can Animate' app installed. Also a 'green screen' (this could simply be a green piece of backing paper or green cloth). Open up the 'I can animate' app and have the front facing iPad camera pointing at the 'green screen' that you have set up. Ensure that you can clearly see the characters when placed in front of it and that the green screen fills the whole of the iPad screen. Have toy model characters available, related to the topic/theme(s) of the animation.

Instructions :

Pupils will **film their stop motion animation** using the iPad app 'I Can Animate'. They will do this in front of a 'green screen' (e.g. green piece of backing paper or green cloth). This will enable you to then add in a background image(s) in step three.

Focussed activities :

Assign each pupil in the group with a toy character. Explain that each pupil will be responsible for moving their character to certain places within the scene (you might also want to give one pupil the role of taking the pictures).

Refer to the story map generated in step one. Before filming, make sure that pupils have an understanding of the language of direction (e.g. "**forward**", "**back**", "**turn left**", "**turn right**") and also a basic awareness of distance (e.g. "**Forward 1 step**", "**Back 2cm**", "**a quarter turn to the right**"...). You might find it beneficial to go over some of this key vocabulary first and model what these terms mean. This should help ensure that pupils are able to move their character to the correct place when different directions are given to them.

Once you have agreed on the language that will be used, you should use these terms to instruct each pupil to move their toy character to different places within the scene (based on the ideas from

the story map generated in step one). The Teacher/TA should model this first, before then asking more confident pupils to take on this directorial role, with the Teacher/TA supporting when necessary.

Model and explain that each time a character is moved, you or another pupil will take a photo (or perhaps a set number of photo's, if you want the scene to last longer), and allow time to film these animations before moving on to step three.

Organisation : Similarly to step two, you might find it best to film each animation within small groups at specific times throughout the week.

Stop motion tips and tricks:

Tip 1 : You might want to give a pupil the role of 'director'. Their job will be to instruct each pupil where to move their toy character to and to tell the person who is taking the photos when to press the red button (i.e. when all hands are out of the way)!

Tip 2 : You might want to take a set number of photos each time a toy character is moved (I tend to take 5 shots per movement). This will extend the duration of the film. As a general rule, 129 photos ('frames') will give you 10 seconds of film, therefore you might want to aim for a set number of frames per scene (I would say at least 200 photos/frames taken).

Tip 3 : To give each pupil in the group experience of different roles, you might want to swap them around at regular intervals.

Tip 4 : To represent an object flying, tie a thin piece of nylon string to it and then take lots of photos as you slowly lift it off the ground (make sure that your hands are out of the way)!

STEP THREE :

Outcome:

A stop motion animation with a **green screen enabled background(s)** added in.

Resources :

Reference **resource 3** (Green Screen tutorial video), if you haven't filmed using the Green Screen iPad app before. You may also want to watch **resource 4** (saving images to the iPad tutorial).

Main EYFS areas covered (refer to unit assessment sheet for specific learning outcomes) :

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- technology

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Personal, social and emotional development:

- being imaginative
- self confidence and awareness

Physical Development:

moving and handling

Expressive Arts and Design

- exploring and using media and materials
- being imaginative

Preparation :

Make sure you know how to use the 'Green screen' app. Make sure you know how to save images to the iPad camera roll (**ref: resource 4**).

Instructions :

Pupils will assist the teacher in choosing a suitable background image(s) for their scene(s) or ideally, will save some background images themselves for the teacher to use. These will then be imported into the Green screen project, in order to really bring the stop - motion animation to life!

Focussed activities :

Start by importing your saved stop motion video from the camera roll into the Green screen app (within your new project, make sure you press the + button on the middle channel). Tell pupils that the next step is to add a background image, so that it will look like their characters are actually there!

Note : *Teachers may wish to do this together; talking through the process from finding an image safely within Safari, saving it the iPad camera roll to finally importing it into the Green screen app (within the bottom channel). However, if possible, you should try and give pupils the opportunity to have a go at finding and saving a background image that you could use, for themselves. If you have filmed a number of different scenes, this could be done by asking them to find one background image each. With support, you could then help them to upload this saved image to a shared folder within Dropbox. This will then enable you to access these images from your main teaching device.*

STEP FOUR (OPTIONAL) :

Outcome:

A completed stop motion animation, further **edited in iMovie**

Extension : *An interactive display using Aurasma.*

Resources :

Reference **resource 5** (editing in iMovie tutorial video), **resource 6** (Aurasma tutorial video) and **resource 7** (Aurasma blog post), for further support and guidance on how to set this up.

Instructions :

Once you have shared the finished animation(s) to the iPad camera roll, you may wish to do some further editing in iMovie. Import the project(s) into iMovie and ask the pupils to assist you with adding in **titles, music** and other features such as **recorded narration**. This is a good opportunity to encourage pupils to apply their literacy skills. Once finished you could also display these interactively using the iPad app 'Aurasma' (see **resource 5, 6 and 7** for support with this).

STEP FIVE (OPTIONAL) :

Sharing pupils completed projects :

If possible, pupils completed videos should be shared to your school **YouTube channel** and then embedded within your **school blog** or website for others to view and comment on.