MAKE YOUR OWN STOP MOTION ANIMATION SEQUENCE WITH WINDOWS MOVIE MAKER

Something that begins with play...

In this tutorial, you will learn how to bring the magic of stop motion animation into your Early Phase classroom. This is a highly engaging and rewarding learning activity that:

- provides students with opportunities to draw on their multiple intelligences;

- engages students in creative and logical thinking and problem solving processes;

- can provide students with opportunities to share their ideas and communicate their understandings in a creative way;

- can encourage team work and collaboration between students.
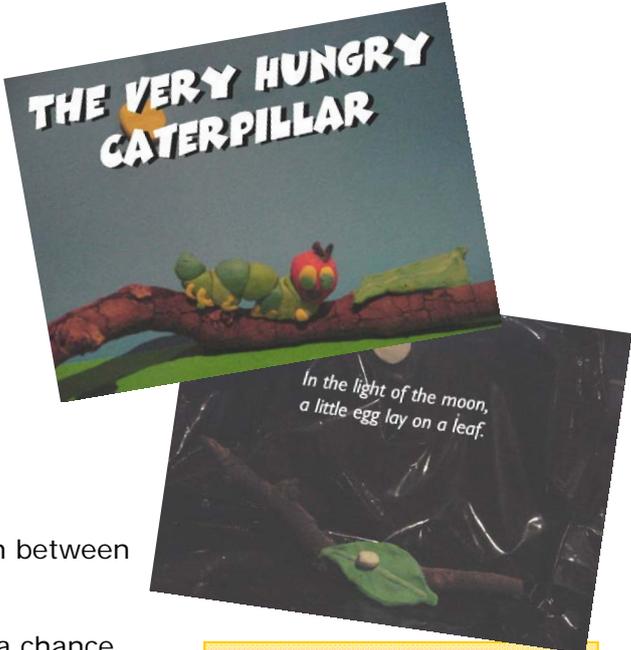
This tutorial is designed to provide you with a chance to work through the steps involved in creating a stop motion or clay animation sequence. Once you have seen just how easy and rewarding the process is, you will then be able to brainstorm ways you can use this process in your classroom. To help you on your way, we have included a few ideas in the panel on the right. These ideas have all been implemented in Early Phase classrooms in Queensland schools and the feedback from teachers is that this a great activity to do with Early Phase students.

What you will need to complete this tutorial

To complete this tutorial, you will need:

- art supplies such as cardboard, paper, coloured pencils and paint to design the set for your animation;

- models that can be moved or some plasticine you can use to create your own models;

- a digital camera;

- a tripod or a desk or table you can use to mount the digital camera on. Note that you need to have your camera in the exact same spot when taking the photos in your sequence. If you do not have access to a tripod, you may need to use blu-tack or tape to keep your camera in the same position;

- Windows Movie Maker (available free with Windows XP and Windows Vista).

Ideas for the Early Phase Classroom

- Set up a stop motion learning centre in a corner of your classroom. Let students engage in free play as they create their own stop motion sequences.

- Have students create stop motion sequences that retell parts of a story or rhyme.

- Use felt boards and felt pieces as the manipulatives for your stop motion sequences;

- Undertake whole class joint constructions of stop motion animation sequences as part of morning sessions or focus lessons;

- Have students work in small groups to create stop motion sequences based on number stories.

- Create stop motion sequences on science concepts such as life cycles, how things move and features of the earth and sky.

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The Stop Motion Animation Process

This section of the tutorial is designed to take you through the steps involved in creating your own stop motion animation sequence. It will also provide you with hints and tips for using the process in an Early Phase classroom context.

Step 1. It all begins with....

The Stop Motion Animation process always begins with either:
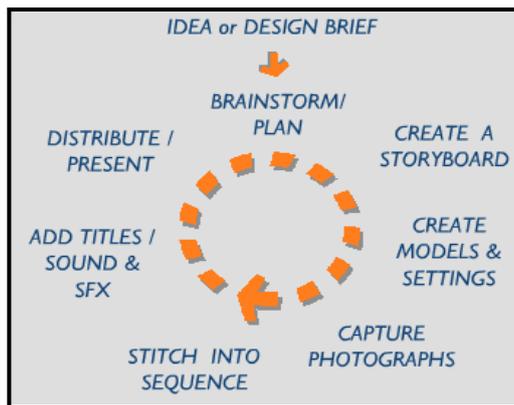
This diagram shows the steps involved in creating a stop motion animation sequence.

a) *an idea*

The idea for the animation sequence can be generated by an individual student, a teacher or a small or whole class group.   You could ask students to think up an idea for creating a stop motion sequence or brainstorm ideas as a whole class. **or**

b) *a design brief*

A design brief sets the parameters for the stop motion animation sequence.   Design briefs are typically provided to the students by a teacher, however could also be given to students by an external client. For example, a police officer may visit the classroom and provide students with a design brief to create a collection of stop motion animation sequences to teach other children about road safety rules.

Example design briefs for Early Phase students are shown here.

Make a stop motion animation sequence that retells a nursery rhyme.	Create a stop motion sequence on an addition number story.	Make a stop motion sequence that teaches others about a school rule.	Create an animation about a letter from the alphabet.

Before moving on to the next step, develop an idea for the stop motion animation sequence you will create as part of this tutorial.   You may also wish to develop a few potential design briefs that would be suitable for use within your current unit of work or classroom context.

Step 2.   Brainstorming ideas and planning your animation sequence.

The second step in the stop motion animation process involves brainstorming ideas and developing a plan for your animation sequence.   The following should be taken into consideration:

- availability of materials;
- a budget if the teacher has costed materials for them to purchase;
- how much time they students have to complete the project;
- what is realistically achievable;

It is a good idea to talk to students about their ideas and planning during this stage to ensure their goals for the animation are achievable. Often students don't understand how time consuming the process can be and this leads them to planning a full length feature film narrative, whereas time constraints will usually mean that they only have time to make a 10 – 30 second animation. As an indication of the time required, it may take around an hour for the students to take 60 individual shots. When stitched together, these shots will add up to a short sequence of around 25 seconds.

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Before moving on to the next step, ensure you have a clear idea for your animation sequence and a plan outlining the types of models and materials you will use and the motion that will be depicted in your sequence.

Step 3. It's time to create a storyboard

Whilst not an essential part of the process, this step is a valuable part of the process, particularly for older students.   In this step, students represent their ideas by creating drawings and notes.

This is a paper-based part of the process and students can be given a template to use or can do rough drawings on plain paper.

Before moving on to the next step, draw your own storyboard on paper.

Step 4. Making your models and sets

This is the part where the fun begins.   Infact depending on the time you have, it may actually be the first step in the process when implementing it in an Early Phase Classroom.

It's time to create the models for your sequence.   Students can use clay to create their own models or can use a wide range of different models and manipulatives. Popular models used in Early Phase classrooms include:

- Lego characters and pieces;
- Toys such as dolls, plastic animals, toy cars and dinosaurs;
- Natural materials such as leaves, sand, rocks and sticks;
- Characters and objects made of felt, coloured card or plasticine.

You can limit students to one type of model, however nearly anything can be used in this process and the more open-ended you are, the more students will be able to explore, invent and create.

Sets are created in a number of ways. Students can create a diorama creating the environment for their animation sequence or can simply paint or draw a background that can be blu-tacked to a wall or board.

A common type of set used in Early Phase classrooms is a piece of cardboard that is folder in half. The cardboard is then placed on a desk or the floor against a wall. The top half becomes the sky or background and the bottom becomes the ground or floor of the set.

Before moving on to the next step, make sure you have your set and your models ready for the animation process.

Important tip!

Plasticine models will melt in the hot weather.

If students are going to be working on their animation over several days or weeks, try to keep plasticine models in the fridge in empty plastic containers or in an air conditioned room or cupboard.

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Step 5. Capturing the Photographs

It's time to start taking the photographs that will be stitched together to create our animation sequence. This stage is pretty straightforward, however, there are a few rules that need to be followed to ensure success.

1) You need to use a digital camera and will have to ensure that your memory stick contains enough space to store a large number of images. You may also wish to check the settings in the menu to ensure that the file resolution isn't set at the highest quality – this will limit the number of photographs that can fit on your media.

2) A tripod is recommended for this activity. If you don't have access to one, consider blu-tac or tape as a means of securing your camera to the one place. A quality stop motion animation relies on the camera being set up in the one spot and the frame remaining unchanged for each scene.

3) Once you have your frame set-up and have taken a shot, the camera should not be moved. For this reason, ensure that there is enough space on your memory card and that your batteries are fully charged prior to starting.

4) This process involves the students setting up their scene and model, taking a photo, moving the model slightly and then taking another photo. This process is repeated many times until the students have worked through the action they wish to represent.

5) Note that the flash should not be on during the filming process. The flash will cause light variations in the final animation. Be cautious also of the students leaning over the animation when taking photographs. This can lead to shadows being cast during some photographs and this too will cause light variations.

6) When students are working collaboratively, it is a good idea to assign roles. One student can be the photographer, another the director and another the model mover. This works very well with younger students who tend to rush from one side of the camera to the other – which can lead to the tripod being knocked and the frame being changed.

Now that you have an understanding of how this process works in a classroom setting, it's time for you to take your photos.

Set up your set, models, tripod and camera and begin taking your shots. Move your models slightly for each shot and continue the process until you have taken all the shots to depict the required motion.

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Step 6. Stitching the Animation Sequence together in Windows Movie Maker

Once you have taken all of the photos, it's time to stitch them together to create the animation sequence.   This stage can be completed using a variety of software applications including Windows Movie Maker, I-Movie, Quicktime Player, Stop Motion Pro and Animation Shop.

In this tutorial, we will be using Windows Movie Maker 2.   The reason for this is that it is a free application that comes with Windows XP.

Follow these steps to finish your stop motion animation sequence.

1.   Create a new folder on your computer.   To do this, click in the folder or part of the network where you would like to create the folder and then right click and select **New > Folder**.   Give the folder a name such as animation.
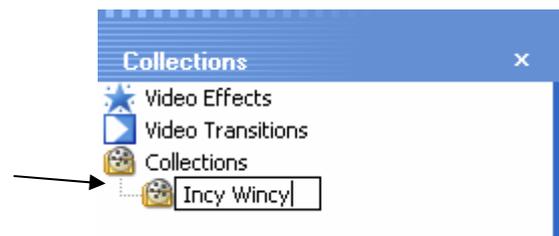
2.   Save the photos from your camera to the new folder you have created.

3.   Open Windows Movie Maker.

4.   Press the **Collections** button at the top of Movie Maker.
     You should now see the Collections Panel shown below appear
     at the left hand side of the screen.
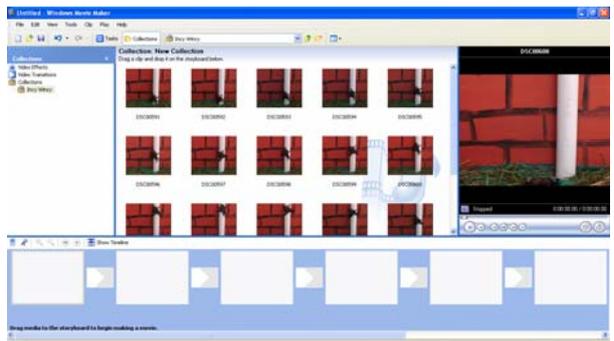
5.   Select **Tools > New Collection** from
     the top menu.

6.   A new collection will appear for you to
     rename.   Type in a name related to
     your animation sequence.

7.   Import your photos into your new collection
     by selecting **File > Import into Collections** and locating the photographs on
     your computer.

     Your screen should look
     similar to this.

8.   We are now going to set up Movie
     Maker to make each of the photos   in
     your movie appear for only 0.25
     of a second. This will mean that
     4 photos will be displayed each
     second and this will create an
     illusion of motion.

     To do this, select **Tools > Options**
     from the top menu.   Select the
     Advanced tab from the top of
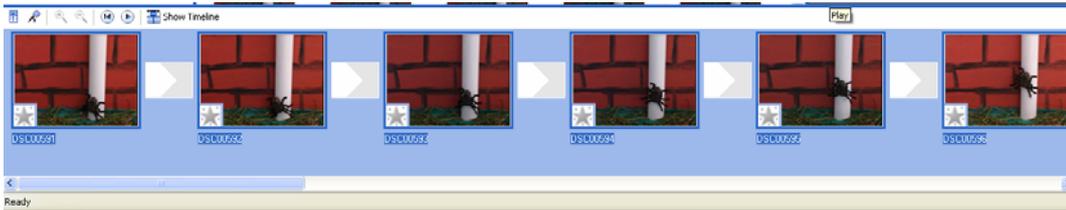   the **Options** panel.
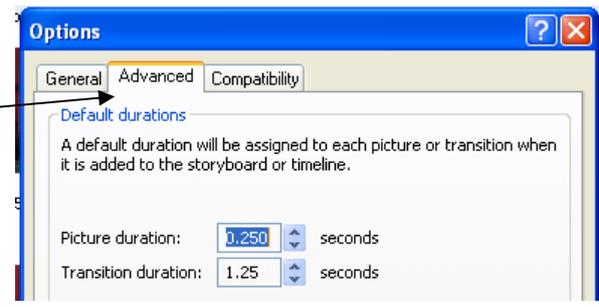
     In the **Picture** duration box, **change
     the duration to 0.250 seconds.**

     ** This must be done prior to
     dragging the images onto the timeline.

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9. Select all of the images in the collection by clicking in the collection and pressing **Ctrl + A**. Drag the images down into the storyboard at the bottom.

10. Press the **Play** button to preview the animation.   If your animation is smooth and you are happy with the speed, move on to the next step.   If it is too fast, press undo until the pictures are removed from the storyboard and then adjust the **Picture duration** setting.

11. Finish your animation sequence by adding some titles and credits.   To do this select **Tools > Titles and Credits** and set up the titles and credits using the options provided.

12. You can also add sound to your animation sequence by using the Narration feature. To add narration to your animation, select the **Narrate Timeline** button and select Start and Stop Narration to capture your narration.

     You can also add sound by importing an existing sound file. To do this, select **File > Import into Collections** and select the file you wish to use.   Click on the **Show Timeline** button above the **Storyboard** and then drag the sound file onto the **Audio / Music** layer of the timeline.

13. Your stop motion animation sequence should now be complete.

     Select **File > Save Project As** to save your Moviemaker file.   This is the file you can open to edit your animation sequence.

     Select **File > Save Movie File** to export your animation in a format that can be viewed on any computer.   Click the appropriate settings – usually saving to view on your computer – and complete this process.

14. View your animation and share your animation with your class and colleagues.

Step 7.   It's time to share your work

The final step involves sharing the animation sequences you or your students have created with others.   You could:

- Select the email setting when saving the movie file in Movie Maker and then email the animated films to parents;

- Invite parents or other classes in to view the animations as part of an Animation Festival;

- Upload the animations to the school or class website.

If you've reached this point, you've more than likely mastered the process of making a stop motion animation sequence.   Check out our Interactive Learning in the Early Phase website to see some great ideas and examples of how it can work in your Early Phase classroom.