



FUTURE SPARKS

TEACHER RESOURCES

Integrating your media and
filmmaking with your science
curriculum

www.futuresparks.org.au

Future Sparks is a Green Cross Australia project in partnership with the Department of Climate Change and Energy Efficiency, CSIRO and Clean Energy Council.

Want to get started integrating media and filmmaking within your science curriculum?

This mini-unit, compiled by Australian Teachers of Media Queensland, gives an overview of one way to do this. Adapt and use it for your competition entries or use it as a starting point to get your students used to making films about science topics.

Note: Each lesson, although designed for 1 hour sessions, may vary in length. This could depend on how familiar teachers and students are with the technology or the depth you wish to go into.

Lesson 1 will require a small experiment to be conducted – perhaps choose one the students are already familiar with.

Lessons 2-4 will also require an experiment to run the duration of these 3 lessons. This experiment will be filmed piece by piece.

Lesson 1: introductory lesson

Resource: filming storyboard

1. Watch a segment of SCOPE or another science program for children. Pause after the end of certain sections e.g. introduction, equipment, experiment and conclusion/results. Ask the students what happens in each of these sections as well as the following questions:
 - When the presenter is talking, who are they talking to?
 - Is it the same as an interview or different, why?
 - What about the types of shots used? Does the camera switched on and left?
 - What titles come up on the screen?

2. Hand out storyboard to students and go through it with them. This sheet is scaffolded to ensure students understand what is expected of the genre.
3. Demonstrate how to take the shots from the storyboard on a still camera. Explain we will be concentrating on the visuals of the shot. Note: We are working with still images to begin with so the students begin to understand the genre of a science procedural video.
4. In small groups, have students take the 5 shots from their storyboard. They could use a still camera or a webcam on a computer.
5. Demonstrate to students how to import their photos into the edit program you are using.
6. Have students do this and then make sure the shots are in the right order.
7. Bring students together and conclude. What else would they need to do to include make their film look like the ones we've seen (e.g. Scope)?

Lesson 2: filming predictions

Resource: interview storyboard

1. Explain the new experiment to the class. Focus on the 'prediction' stage of the experiment.
2. Have students brainstorm some possible questions to ask each other as a class. These questions should be about the 'prediction' stage of the

experiment, for example 'What do you think will happen when we drop the egg from 2 metres?'

3. Ask the students which questions would be more useful and why? They can write some ideas and draw shots onto their storyboard.
4. Have students interview each other using the questions we came up with. Remind students about shot sizes (on their storyboard).
5. Students need to import their footage into a movie project so they can continue with it next lesson.

Lesson 3: film actual experiment

Resource: filming storyboard

1. Have students plan out the stage of the experiment using a storyboard. They may film the equipment, the procedure and results of the experiment.
2. Students then film each section using a range of shots before uploading this footage.
3. Students can then start putting their filmed segments into the right order e.g. Prediction interviews, shots of equipment, the procedure, results.

Lesson 4: final editing and genre conventions

1. Briefly demonstrate to students how to do a voiceover. A voiceover will help to explain parts of the experiment.
2. Have students edit their footage and add voiceovers to their procedural videos.
3. Ask students what is different between our videos and the ones we have watched in class as examples. Demonstrate how to include some of these aspects e.g. titles, music, credits, transitions.
4. Students could now add these conventions to their films.
5. Share the films with the class.

This unit was adapted from a larger unit from the URLearning Project, a Queensland University of Technology project funded through the Australian Research Council and the Queensland Teacher Union.

Interview storyboard

	<p>Shot number 1</p> <p>Shot size: Long shot</p> <p>Question:</p> <p>Answer:</p>
	<p>Shot number 2</p> <p>Shot size: Medium shot</p> <p>Question:</p> <p>Answer:</p>
	<p>Shot number 3</p> <p>Shot size: Medium shot</p> <p>Question:</p> <p>Answer:</p>

Storyboard

	<p>Shot number: 1 Shot description: Long Shot of a desk set up with all the equipment for the experiment. Shot duration: 10 sec.</p>
	<p>Shot number: 2 Shot description: Close up of the equipment on the desk. Shot duration: 10 sec.</p>
	<p>Shot number: 3 Shot description: Close up of the first material. Shot duration: 5 sec.</p>
	<p>Shot number: 4 Shot description: Close up of hands as they place the material around the peg. Shot duration:</p>
	<p>Shot number: 5 Shot description: Medium shot of person conducting the experiment. Shot duration:</p>