Inspiring STEM Stories

Technical Guide

WiTWA
TECH [+]

If you can see her, you can be her.

An Australian Government Initiative | Inspiring AUSTRALIA

Welcome

Welcome to the Inspiring STEM Stories Technical Guide. This resource is a simple guide that will cover a few of the key technical aspects to creating your own video.

1. **Video**
2. **Lighting**
3. **Framing**
4. **Audio**
5. **Editing**
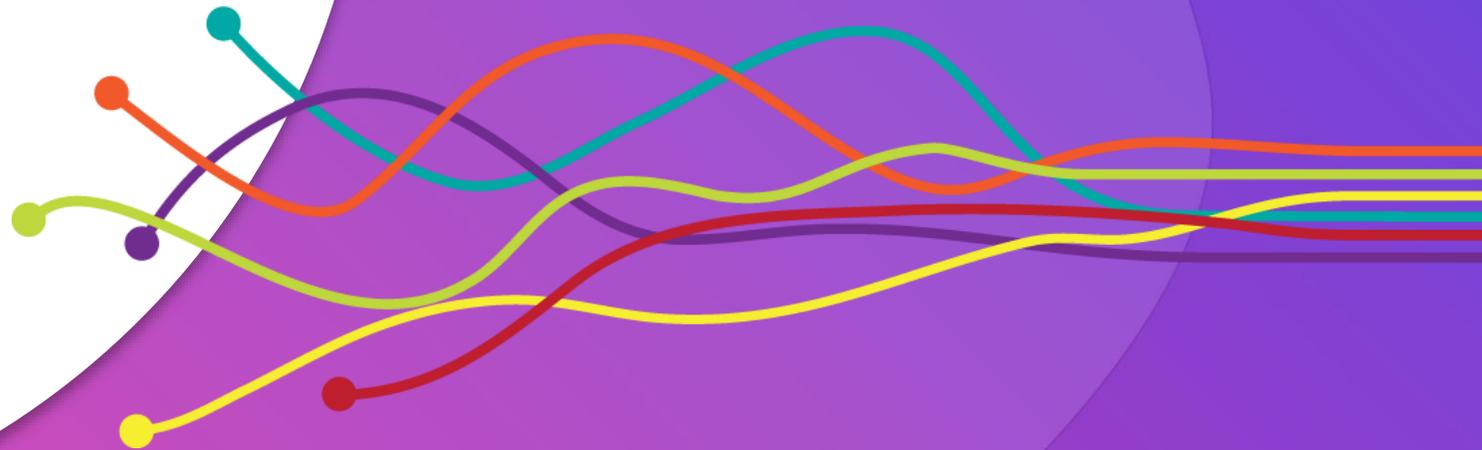
Video

If you are going to be recording your own video, the first thing that you will be thinking about is how you will be capturing your footage.

There are two main points to consider:

1. **Choosing a camera**
2. **Camera settings**
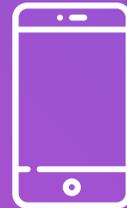
Regardless of what camera you end up using, the most important thing is your story, so do what you can with the technical aspects, but ultimately your content is what you should be focusing on.

Video

Choosing your camera

While a professional camera will give you professional video, you may have access to a decent camera already, your smart phone or webcam!

We recorded some of our footage using:

- Samsung S10
- Logitech StreamCam

Tip: If using your phone, make sure to use the front camera, instead of the selfie one as it is a higher quality camera, and remember to use it in landscape mode.
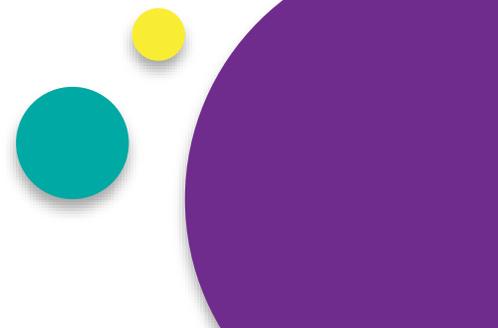
Video

Camera settings

You can usually rely on your auto settings within your camera, but there are a few things to check.

✓ Make sure that you are in focus in your video

✓ Make sure your camera is steady

Tip: If you want to create some separation between you and your background try setting your aperture to a low number (such as 2.8 or 4).
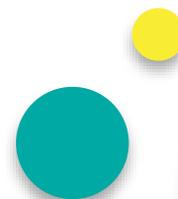
Lighting

Photography literally means 'drawing with light' so considering what lights you use, and how you set these up is important.

There are three main considerations for lighting in your video:

1. **Amount of light**
2. **Direction of light**
3. **Tone/Temperature**
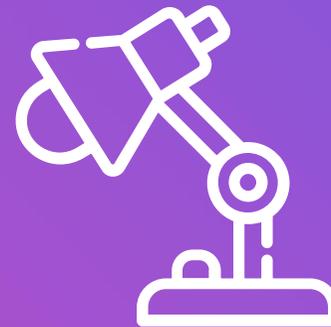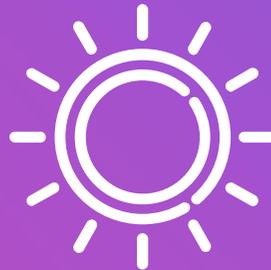
Lighting

Amount of light

You want to ensure that you have plenty of light. Natural lighting can usually be used as your main lighting source, but it is worth thinking about how you can add more lighting sources if needed.

Tip: if you are using a window and recording over a period of time try to pick a south facing window as this will provide consistent lighting throughout the day.

Lighting

Lighting sources

- Natural light or windows make great readily available sources of light if you have them.
- Ring lights can be a useful tool for flattering lighting and you can usually pick one up online for less than $100
- Lamps can be bounced off of a wall to better light the room you are in.

Tip: make sure not to position lighting sources behind you (as you will end up as a silhouette – like this cat)
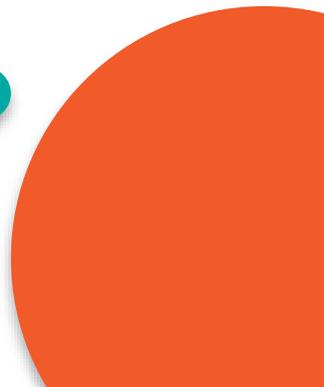
Lighting

Tone/Temperature

Different lights have different tones or colour temperatures (from warm, to neutral and cool).

Tip: try not to use fluorescent or overhead lights as this can create unwanted shadows and tones in your video.
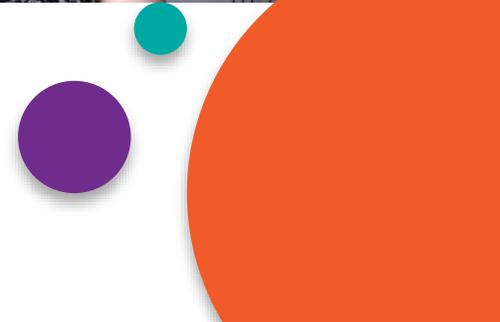
Framing

Framing your video is all about thinking about what the viewer is seeing. This includes:

1. **Background and set dressing**
2. **Positioning yourself in the frame**
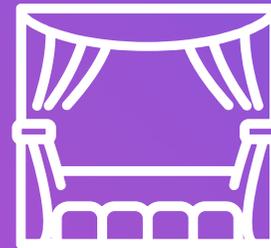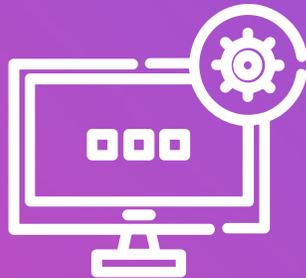
Whether you are using your office, a room in your house, or even shooting your video outside, make sure your background adds to your story, and doesn't distract the viewer.

Framing

Set dressing

Be sure to have a good look at what is in the background of your video. You can clear away any distracting or personal items and add in some elements that relate to your story.


Tip: allow some room between you and your background, this will allow your camera (and viewers) to focus on you!
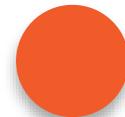
Framing

Positioning yourself in the frame

You can position yourself in the middle of the frame if you are speaking directly to camera. You can also use rule of thirds framing to add interest to your shot.
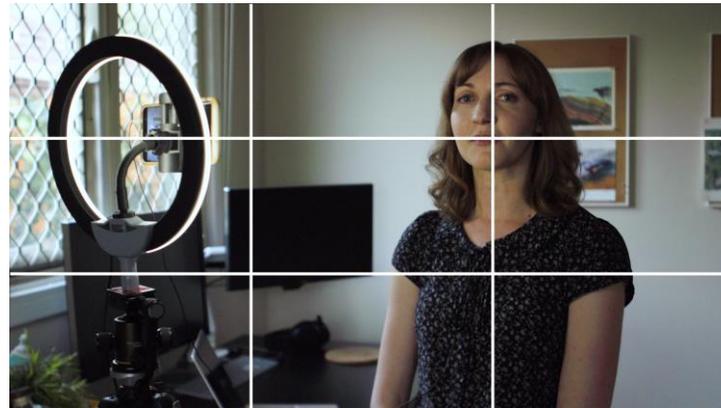
Tip: when using rule of thirds framing, make sure you are facing into the shot with the extra space in front of you.
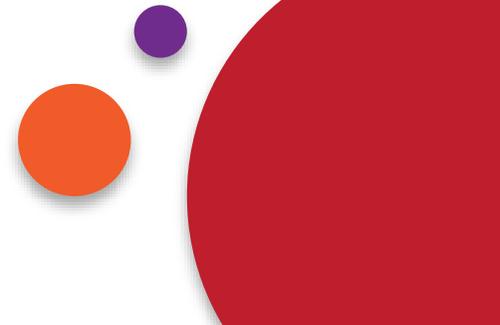
Audio

Audio is a really important part of your video, in fact it is even more important to make sure you have high quality audio than video. There are two key considerations for improving your audio.

- **Get an external microphone**
- **Eliminate background noises**

Make sure to avoid any interruptions or disrupting background noises by informing people that you will be recording.

Audio

External microphone

You can pick up an external microphone for less than $100 which will greatly improve your audio.

Be sure to check the connection before you buy. For a phone or computer input this should be a grey connection with three lines (called TRRS).

Tip: make sure to check your audio quality in a **test video**.
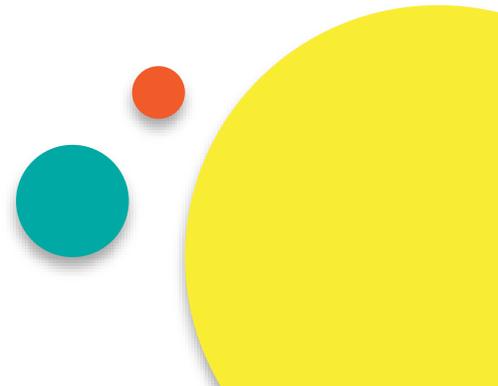
Editing

Editing your video can help you create a compelling story.

Additional content such as **title cards, images** and **music** can help to tell your story and can also help you to transition between sections in your video. The two main categories within editing are:

Video transitions

(between video clips and images)

Audio transitions

(fading in and out music)

Tip: you can find royalty free audio online to add to your video.

Editing

There are a lot of different editing packages around.
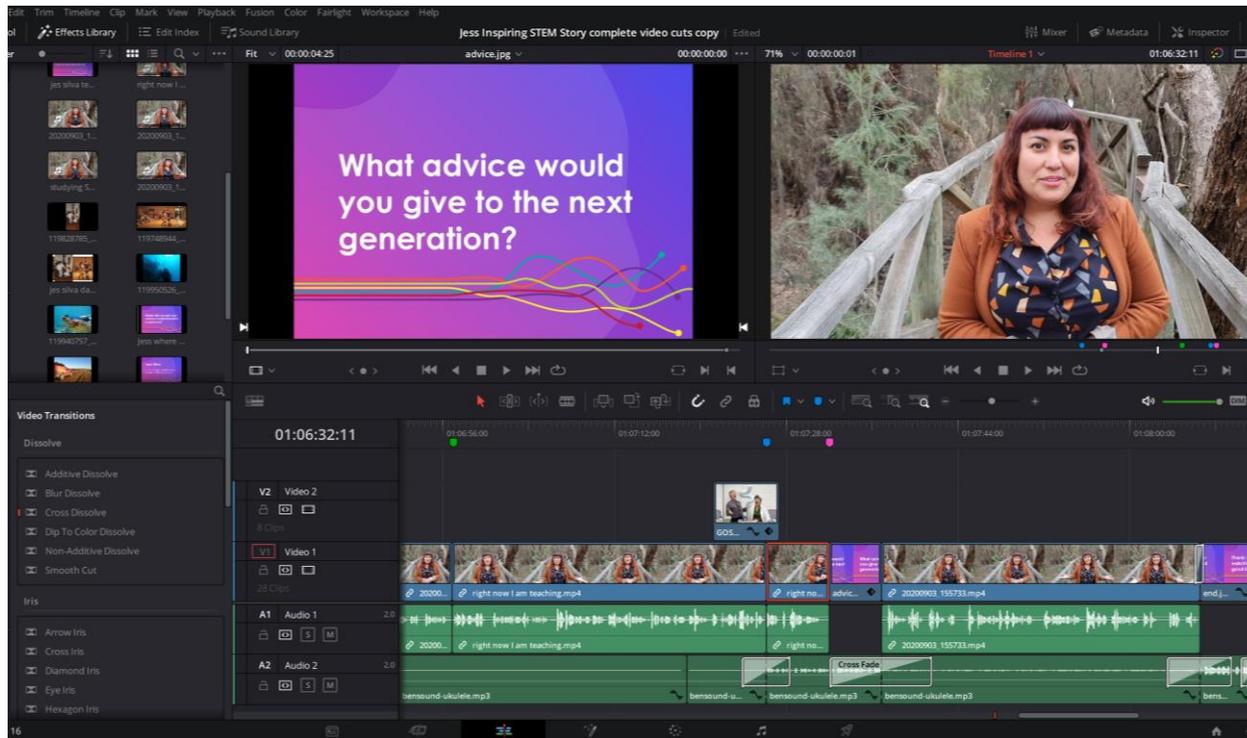
Tip: the best way to learn is to watch some online tutorials for different editing skills and give it a go!

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