

Drawing Your Story

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Getting your message out there can be difficult, but sometimes a little visual aid can go a long way. Whether you're trying to teach others a concept, or talk about the work you do, having moving pictures and animations makes it much easier for an audience to understand you. These animations don't have to be complicated and professionally done. You can do them at home by yourself! In this article, I hope I can help you learn the basics of drawing your story.

I am also a beginner and have only recently learned to do this through my volunteer work. I know some people animate in real-time while they're talking, but I am not a skilled enough multitasker to do both at once, so I'll be doing animations first and then voicing them over after. Here I'll be going over the 5 basic steps I take to making my educational videos so you can do it too! Follow along as I show you how I made my electrical circuits video for Future Energy Systems.

First, let me tell you what technology I use:

- iPad Air 3
- Apple Pencil
- SketchBook (free app)
- iMovie

SketchBook is an application that allows you to record what you draw, but the neat thing is that it only records your strokes, so you can take as long as you need to draw and it won't record the breaks between them. Honestly, there are tons of drawing applications out there, so you can find one that you like! If you want something with a bit more tools, Procreate is a great paid option. But Sketchbook is enough for me, so that's what I'll be using.

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Let's get started!

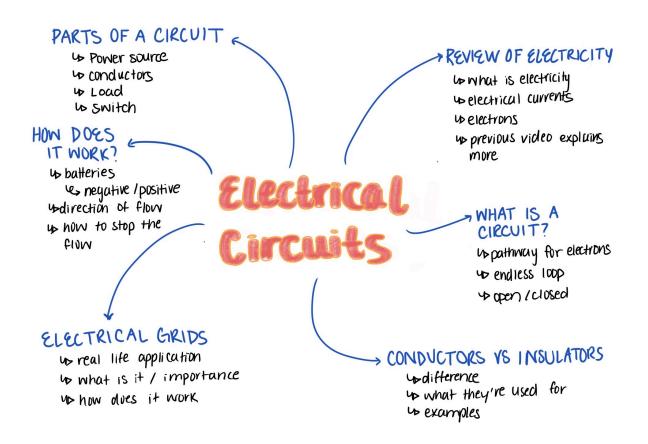




1. Choose your topic and outline what you want to talk about. Highlight your main points.

I started with my topic, electrical circuits, and outlined a couple of things I wanted to touch on in the video. I suggest making a list or mindmap of all the subtopics you want to discuss. Make sure you identify your target audience so that you can tailor your language towards them. In my case, I tried to make my video appeal to junior high aged students. I narrowed the topics down to the parts of a circuit, how it works, a real-life application, and the difference between conductors and insulators.

With an outline of your basic ideas, you can play around with the order of topics and make sure that the video will have a nice flow.



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2. Write a general script.

The next step is to write out a script for your video. As much as I want to start talking about a topic and make it flow perfectly, that usually doesn't happen. Since much of the educational aspects of the video will be voiced over, this makes it easier to simply read off a script. I also find that by starting with a detailed script, it gives you more direction regarding what you want your animations to show. I'm not going to give you a specific format for how this script should be structured, but I'll give you a few pointers.

When you're writing this script, keep in mind the total length of time you want your video to be. Try and time yourself reading out 100 words. This will give you a better ability to estimate how long your script should be. For my ten-minute videos, I try and aim for around 5 minutes of educating the audience on the topic, and then 5 minutes of experiments. The 5-minute speech for me is usually around a page and half of text (12-point font, single-spaced). Honestly, if you can say the same thing with less words, do it. From the perspective of the audience: the simpler something is to understand, the better.

After writing my initial script, I like to go through again and highlight any words that I feel might be too complicated for my audience. Then I either change it or add a definition to it. It's also super helpful to get a second pair of eyes to edit it for you as well.

However, if you do need some inspiration, here's how I structure my scripts:

- 1. Topic: Electrical circuits
- 2. Subtopic: Electrical grids
- 3. Explanation: Here we can see a simple representation of circuits, but in real life they are much more complicated. Our homes get power through something called an electrical grid.
- 4. Definition: An electrical grid is a very large network of connections from power generating plants to our homes that bring us electricity.
- 5. Examples/real-life applications: Have you ever lost power in your house and noticed that the entire neighbourhood also lost power? It's because you're all powered by the same electrical grid.

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3. Create drawings to supplement your talk.

Now it's time to start animating! There is so much freedom in what you want to animate. From simply writing out the main points of your speech, to drawing pictures that supplement what you're saying. Honestly, any visual aid that an audience can follow along with makes your video so much more captivating.

Here's a list of animations I like to include in my videos:

- Intro titles
- · Written definitions that follow along with what I'm saying
- · Sketches that draw out what I'm explaining
- Pictures (from Google that are copyright-free)
- · Labeled diagrams

Now I'll explain to you specifically how I use Sketchbook to do this. You can also take a look at this video where I show you specifically how I do these things. First off, I start by going into my movie editor and taking a screenshot. This is so you can get the right dimensions for your animations, and nothing will be cut off by iMovie. I then place my screenshot into Sketchbook and trace the borders. Within these borders is your canvas to stay in. Once you have this set, you can click record. The app is really neat in that it will only record the strokes you make and not the time in between. So, take your time!

Click to see my video example!

Another thing to keep in mind is that the entire video does not need to be animations. Whenever you want, you can also record yourself talking into the camera like a normal video. The purpose of these animations is just to break up these long clips to keep your audience engaged. As cool as I think animations are, I still think your videos should showcase you! I usually do my introductions and transitions by filming myself. Think about it, if there are no animations that could supplement your talk, the audience would probably rather see you talking than stare at an empty screen as you transition to your next topic.

But with that said, animate away!

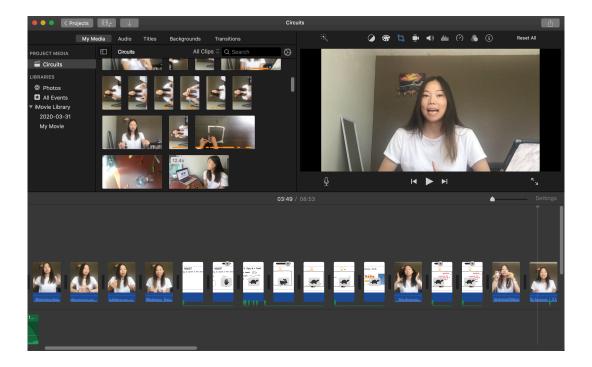




4. Upload the videos to your movie editor.

Now that you have these videos saved to your device, we have to get them onto your video editor! Firstly, upload all of these videos into whatever app you're using. In my case, that's iMovie. Then, place all of these clips in the order that you want them in your video. Initially, the animations will play very fast (because this app is actually for artists to showcase the procedure behind their art), but not to worry, we can slow down the speed, and add some freeze frames. I recommend you actually wait to do this until after you voice it over. This will save you from having to change these settings various times.

Before moving onto the next step, make sure all your videos are in the correct orientation. You can check this also by clicking the crop icon and using the rotate buttons on the right.





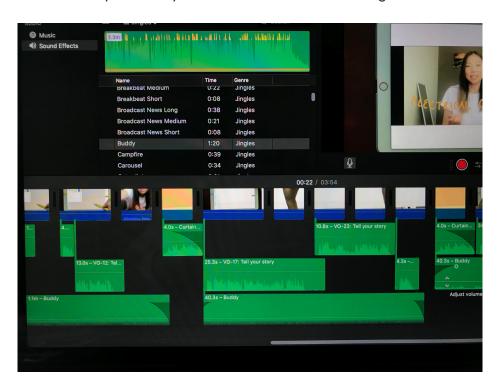


5. Voice over your movie and edit the animation videos.

For the final step, you're going to voice over your video! To do this, click where you want your voiceover to start and the press the little microphone icon. iMovie has a bar that will show you how loud you are. Don't worry about this too much because you can always adjust the volume after. When you're ready, voice over your video in chunks. It's inevitable that you'll mess up, so the shorter you make each of your voiceovers, the easier it is to fix and re-record. I usually start with one subtopic and record a 30-second segment. Then, I'll slow down the animations and add some freeze frames so it matches what I'm saying. I then do that for the entire video.

Click to see my video example!

When I'm finished with my video, my iMovie screen looks something like this:



That's it! You can go through a few more times and make edits, like adjusting the sound or adding transitions. Once you're happy with that, your video is good to go!

Leslie is a student from Calgary studying pharmacy at the University of British Columbia. She discovered the Alberta Emerald Foundation through volunteering with Future Energy Systems and was hired as their summer student in 2020.

