SASTA OLIPHANT SCIENCE AWARDS

SOUTH AUSTRALIAN SCIENCE TEACHERS ASSOCIATION

Prize Winner

# Multimedia

# Year 7-8


## Johanna Manlapas

## Glenunga International High School



Government of South Australia
Department for Education

SASTA South Australian Science Teachers Association

ROWE SCIENTIFIC PTY. LTD. www.rowe.com.au

**Software:**
Microsoft - Photos App
Microsoft - Voice Recorder App

**Bibliography:**


- Santo-Pietro, D & Khan, S 2012, What is Newton's second law?, Khan Academy, California, United States, viewed 31 March 2020, <https://www.khanacademy.org/science/physics/forces-newtons-laws/newtons-laws-of-motion/a/what-is-newtons-second-law>.

- Santo-Pietro, D 2016, Pendulums, Khan Academy, California, United States, viewed 31 March 2020, <https://www.khanacademy.org/science/ap-physics-1/simple-harmonic-motion-ap/simple-pendulums-ap/v/pendulum>.

- Lewin, W 2011, For the Love of Physics - Walter Lewin - May 16, 2011, online video, 16 May, viewed 1 April 2020, <https://www.youtube.com/watch?v=sJG-rXBbmCc>.

- The Editors of Encyclopaedia Britannica, et al 2020, Pendulum: Device, Encyclopedia Britannica, viewed 29 March 2020, <https://www.britannica.com/technology/pendulum>.




**Complications & Improvements:**

One of the biggest hurdles concerning the video was the script. The original video was 5 minutes in length and chose to convey information using comedy and short skits; I initially found it difficult to cut the video down to the 3 minutes required by the Oliphant Science Awards, while still having a coherent video.

I overcame this by going back to my original script and playing around with it, this included: cutting parts out, re-voicing sections and changing the theme of the video. Once I had a shorter script that satisfied me, I compiled the video with new audio for the final production.

Another problem I encountered was how the wind would affect my pendulum periods. The only available place in my home to swing a pendulum was in the yard, using the clothes line, and the wind constantly blew the bob in different directions.

To combat this most efficiently: I checked the forecast for the day with least wind, and set that as the day to film outside, then I proceeded to trial each pendulum 5 times and use the average as the recorded time; this way, I was swinging the bob with the least possible uncontrolled intervention, and smaller margin of error.

**Assistance:**
I had no assistance with the design, editing or technical aspects of the video production. The script and execution were done purely on my own.