A1 - The Sun Report

For A1 you will produce a report on the Sun. It must be no more than 10 pages long. This report has to be written formally with an introduction and closing statments. You should include diagrams and images ensuring you describe them adequately in the text. Any diagrams, images, quotes, and facts that you take from books, online or elsewhere need to be properly referenced using Harvard referencing (see here).

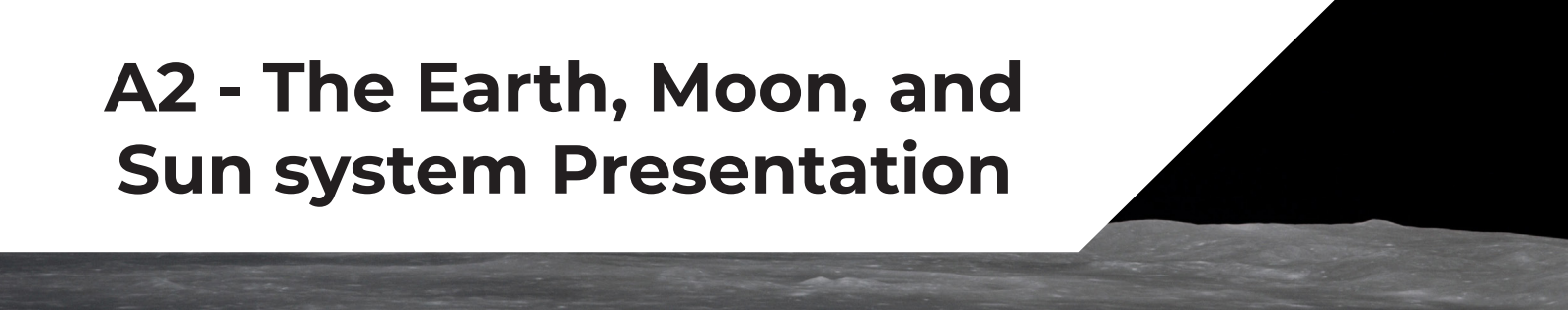
I suggest you plan out the sections of your report before you start any major writing. You will find lots of useful images by going to the NASA photojournal or the ESA multimedia archives.

You might also find it helpful to read the introduction and closing statments of the OpenStax Astronomy book chapter on the Sun (15 & 16) or the other books on the reading list.

	Done
Include a diagram or image on every page	
Describe the chemical composition of the Sun	
Describe the layers of the Sun	
Describe the surface features of the sun and how they relate to magnetism	
Explain nuclear fusion in the sun using a diagram	
Explain hydrostatic equilibium in terms of forces	
Explain the effect on the sun and the solar system when the forces on the sun change	

Top Image: Solar Dynamics Observatory image of flares on the Sun, Credit: NASA/SDO. See more here.

A2 - The Earth, Moon, and Sun system Presentation



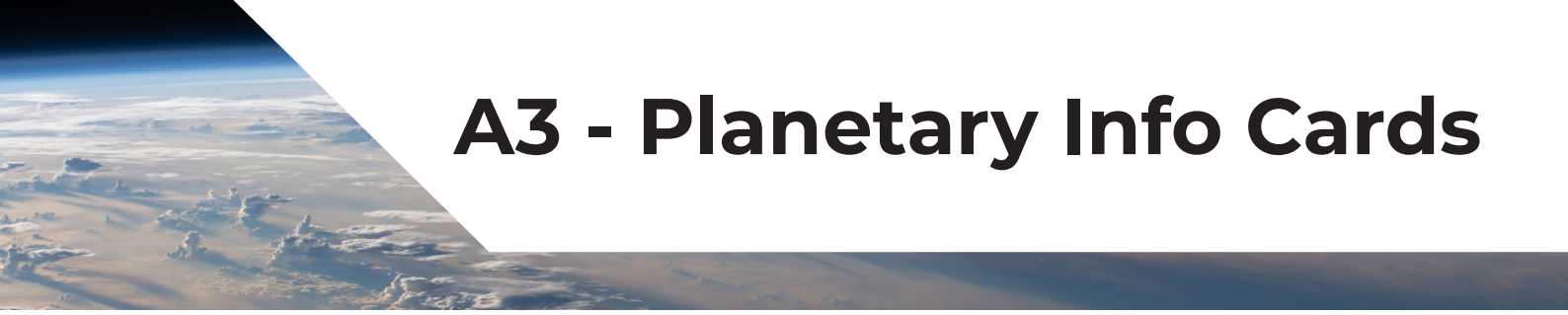
For A2 you will make a presentation on the Earth, Moon, and Sun system. You will be asked to present your work to your peers to improve your communication skills. You are limited to 30 slides and are encouraged to use different forms of media in your presentation.

Some of the concepts in this assignment are hard to visualise in 2D! Use GIFs, animations, and videos alongside static images to communicate your knowledge. When using animations or videos bear in mind that when presenting you will have to narrate them with the video sound off.

You may of course use 3D visual aids in your presentation if it helps. You may not be asked to present your whole presentation but you should be prepared to do so.

	Done
Include a diagram or other media on every slide	
Added talking points to the Notes section	
Describe the interaction between the Earth, Moon, and Sun	
Describe the interaction between the EMS system and other solar system bodies	
Explain how we get day, night, and seasons	
Explain the phases of the Moon	
Explain how we get tides	
Explain how lunar and solar eclipses occur	

Top Image: The view from Apollo 11 taken on July 20, 1969, Credit: NASA/JSC. See more here.



A3 - Planetary Info Cards

For A3 you will make a series of Info Cards on the eight planets. Each will be two sides of A4 with the exeption of the Earth which will be four sides of A4. Think carefully about how you design your cards. I suggest you make a template for one planet that you can just copy across to the other planet.

These cards need to be visually appealing! Consider how much space is taken up by text. Maybe some of your data could be presented in a small table rather than in a block of text.

Again you will find lots of useful images by going to the NASA photojournal or the ESA multimedia archives. You will find loads of great info on NASA's solar system website here.

	Done
Describe the main surface features of the planet	
Describe the composition and structure of the planets interior and atmosphere	
Describe the rings of the planet	
Name any prominent moons	
Describe the Van Allen radiation belts (Earth)	
Describe the surface and composition of the Moon (Earth). How does it compare to the Earth?	
Include physical data - mass, diameter etc.	
Inlcude orbital data - eccentricity, rotation etc. (All) and relate to Kepler's Laws of Planetary Motion (Earth)	

Top Image: International Space Station view of sunrise over the Philippine sea, Credit: NASA. See more here.

A4 - Solar system objects poster

For A4 you will be making either a poster or a leaflet describing the smaller objects in the solar system. If you're making a poster it should be A1 in size. If you're making a leaflet it should be no more than 8 sides of A4 paper.

Make sure you include lots of images and credit them properly. I suggest you start by looking up astronomy poster designs or go around the school and look at some of the posters up in the labs for inspiration.

Hopefully we will get these posters/leaflets printed when complete for display!

	Done
Describe the structure of the solar system	
Describe dwarf planets and where to find them	
Describe some moons which could have been asteroids or TNOs before being captured	
Describe asteroids and where to find them	
Describe meteorites, meteors, and meteoroids (composition and origin)	
Describe the Edgeworth-Kuiper Belt	
Describe the Oort Cloud	
Describe briefly how some of these smaller objects formed	

Top Image: Comet Neowise over northern Greece, Credit: Constantine Emmanouilidi. See more here.