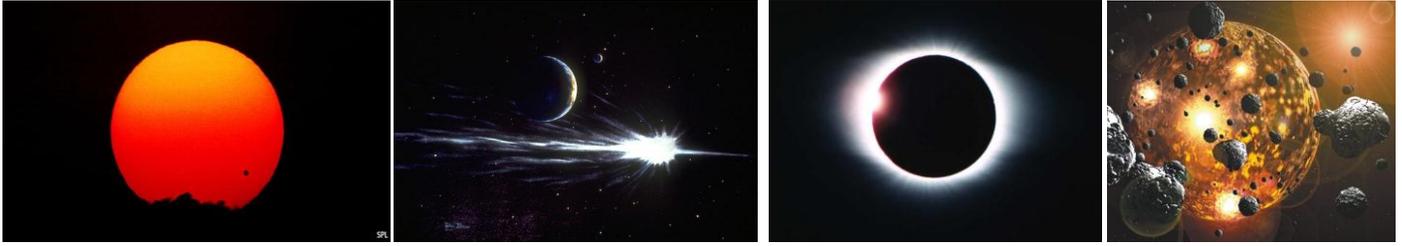


Astronomical Events



Integrated Assessment Task – Year 7, 2012

Topic: **Astronomical Events**

“If I have seen further than others, it is by standing upon the shoulders of giants” Isaac Newton.

Rationale

We have always been fascinated by outer space and what is and could be out there in the vast universe and beyond. For thousands of years little was known about the solar system and the planets. However, several significant astronomical events occurred since recorded time that intrigued humanity and were linked to important events in our history.

Early cultures linked stars and astronomical events with Gods and spirits. In 1200BC the ancient Sumerians created records about the stars and predicted the motions of the planets. The Egyptian pyramids were aligned with the Pole Star. The Ancient Greeks developed astronomy to a highly sophisticated level, and Chinese astronomers were able to precisely predict comets and eclipses.

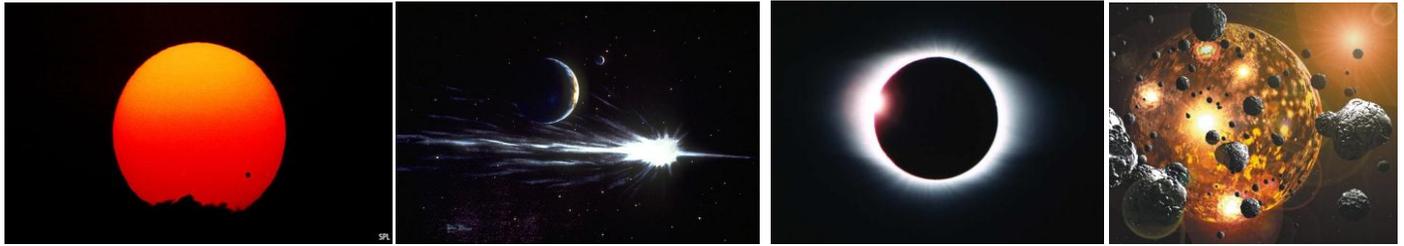
There have been significant astronomical events throughout time that have had a considerable impact on the way we see the universe and on how we interact with Earth. In many cultures the astronomical event was seen as a portent or sign. Halley’s Comet that is visible from the earth every 75-67 years was first observed in 240BC in a Chinese Chronicle. In 1066, the comet was seen in England and thought to be an omen for the death of Harold II of England who was killed at the Battle of Hastings by William the Conqueror later that year. Genghis Khan is said to have been inspired by the comet in 1222 to attack Europe.

Other significant astronomical events include:

- Comet Shoemaker–Levy 9: A comet that broke apart and collided with Jupiter in July 1994, providing the first direct observation of an extraterrestrial collision of Solar System objects.
- SN 1054: A supernova that was first observed as a new "star" in the sky on 4 July 1054 AD, and lasted for a period of around two years.
- Solar eclipses
- The Transit of Venus

Skills: Investigation, analysis, explanation, synthesis and creativity

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Nature of Task

Your challenge is to select a significant astronomical event, research why it was important, and develop a presentation that captures the information in an engaging and creative way. You have to consider the following:

- What the event was and when it occurred.
- Who regarded the event as significant and why.
- How the information can be presented in an engaging and interesting way to an audience of students, teachers and parents.

You will be presenting your information in the Great Hall in Term 2, **10th August at 5:30pm**. You will be allocated one desk and a chair so you need to be creative and think how you will utilise the space. You can set up your space from 3:30pm on.

You must create at least **five questions** based on your research and make these questions available on the night of the presentation so that students, teachers and parents can quiz you. The questions must be submitted prior to the night. You must provide evidence of research through a detailed reference list.

You can present what you have discovered about the astronomical event in any form. Use your imagination, skills and passion to select the most appropriate form and medium of production for your presentation. You could choose to use one or more of the following but remember that you are limited by the space you are allocated:

- A short video
- An advertisement
- Suite of poems or an epic poem
- Narrative
- Web page or website
- Slide show
- Power point
- Prezi
- Poster
- A diorama including written information
- Photographic essay that includes words
- A recording or written transcript of a radio talk back show
- A comic
- Mindmap

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You will be assessed on how well you:

- Demonstrate evidence and application of research
- Communicate your ideas, knowledge and understanding in a creative and engaging way through your selected form
- Create insightful and engaging questions related to the astronomical event.

Outstanding presentations will receive recognition through an academic merit award.

English and Mathematics Assessment Tasks

English: 10% allocated to Semester 2 Assessment marks

Mode: Speaking/Listening Task

Context

Over the centuries, humans have speculated about life on other planets. In more recent times, science fiction has dreamed about the possibility of humans going to far distant places. During terms 1 and 2, students have explored a diverse range of fiction and non-fiction texts and have an understanding of the language forms, techniques and structures used in a range of persuasive texts. This term, students will be examining multimodal texts and the concept of 'Representation'.



Outcomes assessed

6. A student draws on experience, information and ideas to imaginatively and interpretively respond to and compose texts
9. A student demonstrates understanding that texts express views of their broadening world and their relationships within it

The task

It is the year 3012: astronomers have discovered a new planet that offers scope for human life and /or other uses. Imagine:

- Where this new planet is located.
- What its physical shape and composition is like.
- Reasons why humans should go to the new planet.
- How the planet might be used, how humans might get there, live, set up communities, etc.

You will be placed into groups of **no more than 5 students** for the Speaking and Listening components of the task.

Speaking

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- Persuade your group about the potential of the new planet for humans.
- You must use visuals to persuade your audience to travel to a place so far away. (I.e. pictures, maps, graphic representations, music, etc.)
- Speaking time: no more than 2 minutes

Listening

Listen to each person and complete notes on each speech on the scaffold given to you. At the end, write a paragraph to evaluate which speaker was most persuasive.

Submit for marking:

- the written speech
- your own notes on at least four other speakers
- the evaluative paragraph

Students will be assessed on their ability to:

- compose an imaginative speech in order to persuade
- show skill in content, multimodal and language choices in relation to purpose and audience
- listen effectively and evaluatively

Mathematics: 10% allocated to Semester 2 Assessment marks

(Notice to be emailed)

Integrated Task Commences: Term 3, Week 1, Friday – Gallery Plenary Seminar. Time will be allocated in Mentor sessions in week 2.

Task Completion: Term 3, 10th August

Resources

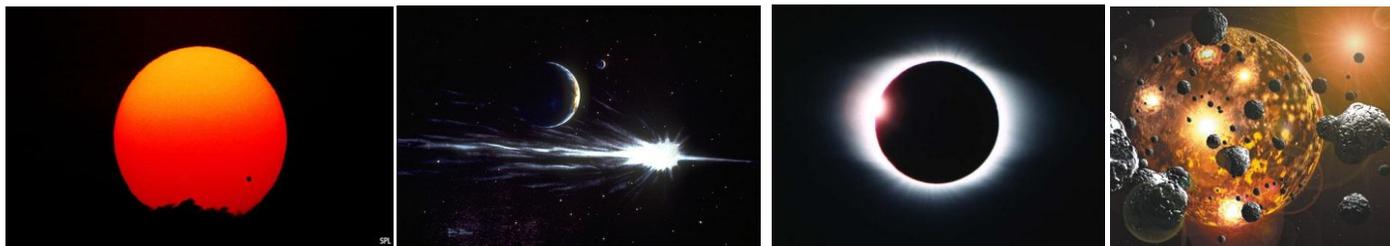
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- Astronomy Timeline: http://www.windows2universe.org/the_universe/uts/timeline.html
- Comet Shoemaker–Levy 9: <http://www2.jpl.nasa.gov/sl9/>
- Halley’s Comet: <http://www.astrosociety.org/education/publications/tnl/01/01.html>
- The Transit of Venus: <http://www.transitofvenus.org/>
- Solar and Lunar Eclipses: <http://eclipse.gsfc.nasa.gov/eclipse.html>

Tools

- <http://www.xtranormal.com/%20/>
- <http://www.makebeliefscomix.com/>
- <http://www.dipity.com/>
- <http://museumbox.e2bn.org/>

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Assessment Task Marking Guidelines

Performance Descriptor	Marking Guidelines
<p>Sophisticated</p> <p>A</p>	<ul style="list-style-type: none"> ▪ Insightful evidence and application of research related to the astronomical event ▪ Skillful communication of the ideas and understanding through form ▪ Insightful questions related to the research
<p>Effective</p> <p>B</p>	<ul style="list-style-type: none"> ▪ Thoughtful evidence and application of research related to the astronomical event ▪ Effective communication of the ideas and understanding through form ▪ Thoughtful questions related to the research
<p>Sound</p> <p>C</p>	<ul style="list-style-type: none"> ▪ Sound evidence and application of research related to the astronomical event ▪ Sound communication of the ideas and understanding through form ▪ Sound questions related to the research
<p>Working towards</p> <p>D</p>	<ul style="list-style-type: none"> ▪ Limited evidence and application of research related to the astronomical event ▪ Limited communication of the ideas and understanding through form ▪ Questions that demonstrate limited effort or evidence of understanding
<p>Not demonstrated</p> <p>E</p>	<ul style="list-style-type: none"> ▪ Little or no attempt to engage with the demands of the task