

ASTRONOMY

Aims of the course

- Understand the structures of the Earth, Moon and Sun; and how their interactions produce many of the astronomical cycles and phenomena of our natural world.
- Understand the Earth's place within the Solar System and the universe; and the forces, which have shaped both our own, and other planetary systems.
- Understand the forces governing the life cycles of stars; and demonstrate a knowledge of how stars appear in the night sky.
- Understand how astronomers discovered the Earth's position within our galaxy and the Universe; and understand current theories for the evolution of the Universe.
- Understand the challenges inherent in making observations in astronomy; and the ways in which technology has aimed to overcome them.
- Apply observational, enquiry and problem-solving skills, through the use of information from aided and unaided astronomical observations; and use these skills to evaluate observations and methodologies.
- Develop an informed interest in current astronomical investigations, discoveries and space exploration.
- Acquire knowledge and understanding of astronomy theory and practice, and the skills needed to investigate a wide range of astronomical contexts.
- Understand that the study and practice of astronomy are interdependent and iterative activities, and appreciate the links between astronomy and other branches of science.
- Develop an awareness that the study and practice of astronomy are subject to limitations by e.g. economic, technical, ethical and cultural influences.
- Progress to further and higher education courses in the fields of astronomy or physics.

Homework

Homework will be set according to topics being covered in lessons, the main focus of the homework will linking the topics to exam questions. Additionally during the term student will be given topic tests. Revision for these will be set appropriately and additional support will be offered during the school week.

Assessment

Exam assessed only – mixture of multiple choice, short-answer questions, calculations, graphical and extended-open-resource questions. There are two pieces of unassessed required coursework undertaken throughout the year which are done outside of lesson time requiring observations or practical work which must be written up in full. These must be completed in order to obtain the GCSE.

Opportunities for teachers, parents and students to provide/access enrichment and further support beyond lessons: Talk to your son or daughter about current astronomical events and observations. Encourage them to read a variety of books and scientific magazine and to watch appropriate television documentaries such as BBC sky at night and Astronomy now. There is also a trip to Greenwich Observatory for a starlight study day.

Lower School Teaching Staff

Victoria Ng



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Programme of Study

Autumn Term 1 <ul style="list-style-type: none">• Topic 1 planet earth• Topic 6 Celestial Observations• Topic 2 The Lunar Disk• Topic 9 Exploring the Moon• Topic 11 Exploring The Solar System	Autumn Term 2 <ul style="list-style-type: none">• Topic 5 Solar System Observations• Topic 7 Early Models of the Solar System• Topic 8 Planetary Motion and Gravity• Topic 10 Solar Observation• Topic 3 The Earth, Sun and Moon System• Topic 4 Time•
Spring Term 3 <ul style="list-style-type: none">• Topic 12 Formation of Planetary Systems• Topic 13 Exploring Starlight• Topic 14 Stellar Evolution•	Spring Term 4 <ul style="list-style-type: none">• Topic 15 Our Place in the Galaxy• Topic 16 Cosmology
Summer Term 5 <ul style="list-style-type: none">• Revision	Summer Term 6 n/a

