



| Scheme of Learning | Y7 Science: The Earth and Beyond |
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| 1. End Product 2. Subject content 3. Skill set: Ability to apply knowledge in a new situation | 1. Explain the role of gravity on Earth and other planets and its role in orbits of the planets and satellites. 2. Describe the axis of spin of the Earth and explain the phenomena of day night and seasons. 3. Understand that there are luminous and non-luminous objects and that the Earth and Moon are seen by reflected light. 4. Explain how eclipses of the sun and moon occur, understand how the view from Earth of the Moon causes the phases. 5. Understand what our Solar System comprises of. 6. Some examples of recent space exploration and the conditions on Earth which support life. 7. To describe that there are natural and man-made satellites - all maintaining orbits due to gravity. |
| Key Questions | What are key constituents of our Solar System? How do they interact? How do celestial dynamics dictate night, day, phases of the Moon and eclipses? |
| Knowledge | <ul style="list-style-type: none"> What are key constituents of our Solar System Using models of the solar system to understand night day years and moon phases. Solar system, Galaxy, Universe, Gravity, Orbits, Satellite, Eclipses |
| Ongoing Assessment | <ul style="list-style-type: none"> Retrieval questions at the start of every lesson. Worksheets for all major concepts to be used for self and peer assessment. Revision checklist at beginning of handout pack and retrieval questions at the end. |
| End Product Assessment | Assessment phases of moon models. End of topic test, 30 marks in 35 minutes. Including a mixture of MCQ, short answer and long answer questions. With mark schemes moderated by the team, with notes on standardised language. |
| Clear sequencing of content | Students will develop the language to understand the model of our Solar system as a basis for developing an understanding of the Universe in both GCSE Physics and Astronomy. Using this model and relative motion to explain day night months years and seasons. A key concept will be to understand that weight is a force as opposed to mass and thus can be different in differing gravitational fields. |
| Links to careers | Weather forecasting, engineering, satellite design, astrophysics and professional astronomy. |
| Diversity and Inclusion | Links to Y11 forms – diverse astronomers or astronauts, including Kalpana Chawla, Katherine Johnson, Dr Mae Carol Jemison and Dr Maggie Aderin-Pocock |

NHSG Key Stage 3 Unit Overview for Y7 Science: The Earth and Beyond



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| Support | Handout packs including learning checklist provided for every student, PP and LAT provided with CGP revision workbooks. |
| Challenge | <ul style="list-style-type: none">• Stretch challenge question on end of topic test.• Stretch and challenge question sheet.• Space Design Competition – Galactic Challenge.• Trip to Herstmonceux – space science, astronomy, planetarium shows. |