**Topic Overview: Universe**

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|  | Ref | Outcome | Achieved | ☺ |
| Emerging | E8ScU1.1 | Know that the earth orbits the sun |  |  |
| E8ScU1.2 | Know that Earth is one of the planets of the solar system |  |  |
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| E8ScU2.1 | Describe what happens at sunset and sunrise |  |  |
| E8ScU2.2 | Know the planets in the solar system |  |  |
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| Developing | D8ScU3.1 | Explain how the earth rotates on its axis |  |  |
| D8ScU3.2 | Explain how we see the moon |  |  |
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| D8ScU4.1 | Know why we have day and night |  |  |
| D8ScU4.2 | Describe the phases of the moon |  |  |
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| Securing | S8ScU5.1 | Explain day and year length, seasons |  |  |
| S8ScU5.2 | Describe the appearance of planets or moons from diagrams showing their position in relation to the Earth and Sun |  |  |
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| S8ScU6.1 | Explain why places on the Earth experience different daylight hours and amounts of sunlight during the year |  |  |
| S8ScU6.2 | Describe some ways of investigating the planets |  |  |
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| Mastering | M8ScU7.1 | Compare models of the solar system |  |  |
| M8ScU7.2 | Explain the choice of particular units for measuring distance. |  |  |
| M8ScU8.1 | Compare explanations from different periods in history about the motion of objects and structure of the Universe |  |  |
| M8ScU8.2 | Describe how space exploration and observations of stars are affected by the scale of the universe |  |  |
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| M8ScU9.1 | Predict patterns in day length, the Sun's intensity or an object's shadow at different latitudes |  |  |
| M8ScU9.2 | Make deductions from observation data of planets, stars and galaxies. |  |  |

**Keywords**

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| **Galaxy:** Collection of stars held together by gravity. Our galaxy is called the Milky Way. |
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| **Light year:** Distance light travels in a year (over 9 million, million kilometres). |
| **Stars:** Bodies which give out light, and which may have a solar system of planets. |
| **Orbit:** Path taken by a satellite, planet or star moving around a larger body. Earth completes one orbit of the Sun every year. |
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| **Exoplanet:** Planet that orbits a star outside our solar system. |