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**Knowledge Rich Curriculum Plan**

SCIENCE- Earth and Sun



| **Lesson/Learning Sequence** | **Intended Knowledge:**  *Students will know that…* | **Prior Knowledge:**  *In order to know this, students need to already know that…* | **Working Scientifically** | **Tiered Vocabulary and Reading Activity** | **Assessment** | **Support** |
| --- | --- | --- | --- | --- | --- | --- |
| ***Days and Nights*** | *Students will learn how to describe the cause of day and night to be that the Earth is rotated towards to sun to give ‘day time’ and rotated away from the sun to give ‘night time’. Students will learn that the variation in day length is due to the tilt of the Earth’s axis, in the summer the days appear longer in the northern hemisphere due to the Earth being tilted towards the sun. Students will learn that the days are shorter in the winter in the northern hemisphere due to the Earth’s axis being tilted away from the sun.* | *The Earth orbits the sun. each year*  *The Earth rotates every 24hrs*  *The sunrises in the East and sets in the West* | *They can also experimentally investigate the effect of rotating the earth around a light source, could use ping pong balls and the white based lamps, pupils could work out the tilt of the ear the and plot its rotation on paper or in their books.* | *Tier 2*  ***Day:*** *the time taken for the Earth to rotate once on its axis.*  ***Axis.*** *A line through which a geometric shape rotates*  *Tier 3* | *Retrieval questions*  *Simple exam questions*  *Homework quizzes*  *Summative assessment 3* | *Knowledge organiser (provided on Teams and in class)*  [*https://www.bbc.co.uk/bitesize/guides/z8wx6sg/revision/5*](https://www.bbc.co.uk/bitesize/guides/z8wx6sg/revision/5) |
| ***Temperature in different seasons*** | *Students will learn that days sunlight hours are different at different times of the year because of the tilt of the Earth. Students will learn that the average temperature is higher in the summer due to the northern hemisphere being tilted towards the Earth. Students will learn that the average temperature is lower in the winter due to the northern hemisphere being tilted away from the Earth.* | *The Earth orbits the sun each year.*  *Each year has four seasons (summer, autumn, winter and spring.* | *Graph skills: producing average temperature graphs for each month from data* | *Tier 2*  ***Season:*** *A division of the ear*  *Tier 3*  ***Hemisphere:*** *Half of a sphere* | *Retrieval questions*  *Simple exam questions*  *Homework quizzes*  *Summative assessment 3* | *Knowledge organiser (provided on Teams and in class)*  [*https://www.bbc.co.uk/bitesize/guides/z8wx6sg/revision/4*](https://www.bbc.co.uk/bitesize/guides/z8wx6sg/revision/4) |