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| Year 7 | **Topic: C2 – Particles**  **P2 – Light**  **Period:** Spring 2 |
| **Overview of topic:**  C2 - Students will gain an understanding of particles and the movement of particles, including diffusion. They will also learn about the changes of states of matter, including an investigation into changes of state. Students will also learn about gas pressure whilst they study particles. They will also investigate density gaining the disciplinary knowledge to support their understanding of the density concept. This topic also includes a case study on Masataka Taketsuru.  P2 – Students will gain an understanding of how light waves behave and their properties. Students will investigate reflection and then apply this knowledge to different scenarios. Students will then learn about refraction and they will investigate refraction through a prism. This topic will culminate in students learning about the eye, and how we can correct poor vision. | |
| **Key** **knowledge:**  Particles  Light  **Key vocabulary:**   |  |  | | --- | --- | | **Tier 2** | **Tier 3** | | **Reflection**  **Prism**  **Spectrum** | **Particles**  **Diffusion**  **Density**  **Vacuum**  **Filament**  **Ray**  **Lens**  **Focus** | | **Key skills:**  ***Disciplinary knowledge:***   * ***Use a thermometer to measure temperature.*** * ***Use ray boxes to collect data about reflection and refraction*** * ***Be able to draw scientific diagrams*** |
| **Co-curricular opportunities: Understanding why some students wear glasses** | **Key reading skills**  **DART activities – comprehension tasks**  **Wider Reading Opportunities/Links:**  **www.kidshealth.org/glasses** |
| **How can I use this information at home?**   * Conversation starters with your children to discuss their learning * Support your child in carrying out independent research around the topic * Visit your local library (or BorrowBox), museums, or other locations to explore the topic * Promote books/other texts that explore this topic (see reading section) * Help your child to learn the key vocabulary | |