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| **Subject Yearly Overview 2021-2022 Year 8** | | | |
| **Subject: science** | **TOPIC** | **COMPONENT** | ***Notes:*** *Why are you delivering this topic at this time of year?* |
| **Autumn 1** | Organisms and their environment | Creating food chains  Using correct terminology  Accurate use of food chain and web formats  Understanding of the food chain system and that it can collapse. | Builds on knowledge from year 8 of living and non living and the interdependence of species. |
| **Autumn 2** | Particles and structure | Solid, liquid and gas as particles  Practical investigations and development of independent skills and risk assessments. | Continuing the sequence of study for chemistry from year 7. This builds upon the knowledge of substances. |
| **Spring 1** | Particles and structure | Atomic structure investigations and diagrams. Use of simulations.  Writing of chemical equations.  Practical investigations | Building a deeper understanding of substances with the limitations of the science room. |
| **Spring 2** | Variation/adaptability and evolution | Use of online simulations and research to gain deeper knowledge of the theory of evolution. We will define the word theory in scientific terms and explore alternative versions and the use of evidence to support this will be introduced. | Students should have the maturity to confront the main cornerstone of biological understanding. We will undertake discussions that will require mutual respect. |
| **Summer 1** | Chemical reactions | Practical investigations and development of understanding of the movement of energy and conservation of mass. | Students will have a continued focus on chemistry to permit engagement in practical science within the limits of the science room. |
| **Summer 2** | Sound and light waves | Ray diagrams and explanations to the nature of light. | Maximising the use of outdoor resources and sunlight to explore the phenomena of light and gain understanding of the world around us. |