**Curriculum Overview for Science**

**Year 8**

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| **Half Term 5 : Future Olympian**  **Substantive Knowledge:**  Identification of main food groups  How to control body temperature  The effects of energy drinks  Explain heart rate  Describe how heart rate is affected by exercise  Explain breathing rate and how it changes during exercise  Compare anaerobic and aerobic respiration  How respiration is affected by altitude  **Disciplinary Knowledge:**  How to calculate speed | Books | Article homework – reading for meaning, Model reading and highlighting to pick out key details, reading of data, Skim reading |
| Speech | Healthy, Balanced, Ratios, Energy, Diet, Temperature, Homeostasis, Vasodilation, Vasoconstriction, Electrolytes, Adrenaline, Caffeine, Glucose, Lungs, Reactants, Products, Respiration, Haemoglobin, Saturation, |
| Checklist RTL | Recall test x 2  Written assessment  End of unit assessment |
| Home | Article Homework to promote reading like a scientist  Revise for recall test  Optional revision for written assessment and wish tasks when complete. |
| **Half Term 6: Investigations in a New Context**  The effects of performance enhancing drugs in sport  How athletes alter their body to gain an advantage  Describe what makes the perfect athlete  Describe the 3 types of neurone  How drugs affect the nervous system  Explain reaction time  How MND and MS affect normal life  How we respond to sound and light  **Disciplinary Knowledge:**  How to calculate speed  How to interpret distance-time graphs  How to interpret velocity-time graphs | Books | Article homework – reading for meaning, Model reading and highlighting to pick out key details, reading of data, Skim reading |
| Speech | Drug testing, Athletes, Performance enhancement, Steroids, Marginal gains, Synapse, Neurone, Stimulant, Reaction time, Acceleration, Deceleration, Velocity, Antidoping |
| Checklist RTL | Recall test  Written Assessment |
| Home | Article Homework to promote reading like a scientist  Revise for recall test  Optional revision for written assessment and wish tasks when complete. |