**Year 8: ASK Yourself!**

**Subject: Science**

**Topic:** **Winter**

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|  | **Launching**  **1-2** | **Developing**  **3-4** | **Progressing**  **5-6** | **Mastering**  **7-9** |
| Text Box**kills** |  |  | Shape |  |
|  | Explain the properties of solids, liquids and gases based on the arrangement and movement of their particles.  Investigate the conditions for bacteria growth using agar plates. | Draw before and after diagrams of particles to explain observations about changes of state, gas pressure and diffusion.  Inoculate an agar plate using the sterile technique. | Relate the features of the particle model to the properties of materials in different states  Investigate how to test the effect of antibiotics on bacterial growth | Make predictions about what will happen during unfamiliar physical processes, in terms of particles and their energy  .Explain how antibiotics affect bacterial growth |
| Text Box                 **nowledge** | Shape |  |  |  |
|  | A substance is a solid below its melting point, a liquid above it, and a gas above its boiling point  Understand how disease spread and how to prevent it.  Compare the characteristics of types of microorganisms. | Observations where substances change temp or state can be described in terms of particles gaining or losing energy.  Describe how the body resists infection through the role of white blood cells. | Properties of solids, liquids and gases can be described in terms of particles with differences in arrangement and movement: closely spaced/ vibrating (solid), random motion but contact (liquid), random motion /widely spaced (gas).  Understand how vaccination and antibiotics help prevent disease.  Understand how alcohol, smoking and drugs are lifestyle diseases. | Use the particle model to evaluate particles in density, pressure changes and concentration.  Evaluate how vaccination brings immunity and how antibiotics work. |