**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 statesInvestigate 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 pointUnderstand 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. |