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| **How does Science support our vision, mission, values and aims?** | Our Science curriculum stimulates a love of learning and excites pupils’ curiosity about phenomena and events in the world. Through science, pupils understand how major scientific ideas contribute to technological change – impacting on industry, business and medicine and improving the quality of life.  Through their learning in Science, our children are encouraged to be stewards of God’s creation, to develop a sense of awe and wonder and to gain an appreciation of the wonderful world that God has created. |
| **What are the National Curriculum requirements for Science?** | The National Curriculum for Science aims to ensure that all pupils:   * develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics * develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them * are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future. |
| **How is Science taught?** | Science is taught through whole class teaching and individual or group activities. Science units are delivered regularly throughout the year, through which the children are able to use skills acquired in English and Maths. Children are encouraged to carry out scientific investigations through asking questions and using their observations and ideas to suggest possible answers and further questions. In addition, the key skills taught are: setting up simple practical enquiries - comparative and fair tests; making systematic and careful observations using notes and simple tables; taking accurate measurements using a range of equipment; gathering, recording, classifying and presenting data in a variety of ways; reporting and drawing conclusions on findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables; recognising when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. For most lessons, the Twinkl scheme is used, as it has a balance of knowledge - based and investigative activities.  Remote Learning:  In the event of a school closure, remote learning will be provided via the Seesaw platform. Wherever possible, remote education will align as closely as possible with our in-school provision, providing breadth, balance and progression.  In Science, the following resources will be used to deliver the curriculum:   * Oak Academy * Twinkl * BBC Bitesize * Inspiring Science   The following approaches may be utilised:   * Pre-recorded teaching input videos * Written tasks, including Power Points; written explanations * Zoom calls for live discussion / input * Practical activities   The school recognises that some adaptations may have to be made to address the additional challenges of children having to work at home. In Science, units and resources will be tailored to meet the needs of learners.  (See also Remote Learning Policy) |
| **How is SMSC developed through Science?** | **Spiritual** – the wonder about what is special about life, an awe at the scale of living things from the smallest micro-organism to the largest tree and the interdependence of all living things and materials of the Earth.  **Moral** – encouraging pupils to become increasingly curious, to develop open mindedness to the suggestions of others and to make judgements on evidence, not prejudice.  **Social** –group practical work which provides opportunities for pupils to develop team working skills and to take responsibility for their own and other people’s safety when undertaking practical work.  **Cultural** – thinking of Scientific discoveries as part of the world’s culture. |
| **How is Science assessed?** | We assess the children’s work in Science while observing them working during lessons and looking at written work. Teachers record the attainment of pupils against the relevant National Curriculum objectives set out on the Teacher Science Assessment Framework. Assessment outcomes are recorded at the end of each topic – children are judged to be either working towards, achieving expected standard or at greater depth. |
| **How is Science monitored?** | Science is monitored at least once per term. This may take the form of discussions with pupils, scrutiny of work, gathering assessment data and evidence and observations as part of learning walks. |
| **Cross – Curricular Links Extra Curricular**  **Visits and Visitors** | Topic links are made, where appropriate. Key skills are taught to develop a good level of understanding and are then applied during science weeks. Meaningful links are made with History, Geography, Computing, Maths and English.  The following examples of visits and visitors enrich the Science curriculum:   * Rosall School Planetarium * Local farms & the zoo * Bugs visiting class * Animals visiting school * Local area nature walks * Manchester Museum of Science & Industry * Heart Start training delivered by the Fire Brigade * STEM for Girls Project through the Ogden Trust |
| **Report to Governors:** | Termly through Head teacher’s written report.  Presenting to Governors: Summer 2024  Policy Review – September 2024 |