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| **Sacred Heart Catholic Primary School – Curriculum Intent for Science**  *We strive to nurture a love of learning through excellence in learning, pastoral care and faith formation.*    In science at Sacred Heart we intend to give all children a strong understanding of the world around them while acquiring skills and knowledge to think scientifically. In doing so, to deliver the expectations of the national curriculum, while upholding our school’s science principles thus raising the profile of science across the school. | | |
| **Faith** | **Hope** | **Love** |
| Our curriculum:   * Fosters a sense of awe and wonder so that learners are engaged and enthused about the world around them; * Empowers pupils to confidently articulate their faith and beliefs while questioning phenomena and from the world we live in; * Promotes fundamental British Values and encourages respect for everyone, embracing and celebrating all backgrounds and differences; * Sets high expectations for all pupils so that no child is left behind; * Encourages pupils to have faith in themselves and develop a growth mind-set so that they become inquisitive and resilient learners. Curiosity and the ability to question is nurtured and developed as we investigate the world around us. | Our curriculum:   * Allows pupils to challenge themselves and each other while developing scientific conclusions that confirm their hypothesis; * Encourages pupils to be critical thinkers who work collaboratively to solve problems and evaluate effectively enabling them to make informed decisions and choices that can be investigated and proved; * Is continually developed through research, effective CPD and reflective dialogue and practice about the world around them; * Develops scientific knowledge of biology, chemistry and physics through the topics taught; * Understands the different types of scientific enquiry and develop the skills needed to deepen their scientific knowledge. | Our curriculum:   * Nurtures an understanding of the importance of science to the local community and world, both today and in the future, i.e. environmental issues; * Develops communication and social skills by encouraging co-operative learning and discussion; * Develops independence and problem-solving skills; * Makes children feel they are valued as holistic, active learners and empowered with the confidence and self-esteem to make choices and be motivated; * Promotes scientific role models, both living and dead, from all backgrounds to encourage high aspirations; * Teaches us to follow in Jesus’ footsteps to love and look after our planet as outlined in Pope Francis’s, Laudato Si. |
| **Sacred Heart Catholic Primary School – Curriculum Implementation Science**  *We strive to nurture a love of learning through excellence in learning, pastoral care and faith formation.* | | |
| At Sacred Heart we follow the national curriculum statutory requirements as the basis for our long term and medium term planning. Each year group has specific units to be completed over the course of the academic year. Our curriculum map shows not only the knowledge and skills to be taught but also outlines the progression each year. Statements for Greater Depth give teachers an indication of challenges for more-able students.  The curriculum is enhanced further with a range of material to support planning, including the Kent scheme of work, Outstanding Science and Target Tracker planning statements. Staff interviewed during a subject specific inspection felt confident about the resources available and spoke positively about the support offered by the subject leader.  Where possible, cross-curricular are made to deepen the learning experience so that pupils ‘learn more, know more, remember more’ (Ofsted, 2019).  Science is assessed bi-annually using formative assessment tools which allows progress to be measured.  The EYFS Curriculum for Understanding the World is taught in variety of ways through adult led and adult-supported tasks and child-initiated learning in well-resourced provision areas, both indoors and outdoors. In KS1 and KS2 science is taught twice per week with each topic having varying degrees of scientific enquiry as well as science subject knowledge being developed. If possible practical resources are used to complement lessons to further develop children’s science capital. In UKS2, children study a selection of scientific role models from a range of culturally diverse backgrounds.  The science curriculum is supplemented with a curriculum week – British Science Week. This week is used to celebrate science learning across the school and to share some of learning with the wider community. Where appropriate, science learning is also supported through trips (National Science Museum) and visits (City Farm).  Resources for planning and CPD are often shared with the Merton Science Deanery group. This is a collaboration amongst Merton Catholic Schools (both primary and secondary) to share resources, ideas and CPD. | | |
| **Sacred Heart Catholic Primary School – Curriculum Impact Science**  *We strive to nurture a love of learning through excellence in learning, pastoral care and faith formation.* | | |
| The impact of the science curriculum is measured through qualitative and quantitative data. Data analysis from Feb 2020 has shown the following:   * 92% of children at or above expected progress for science * 33% make above expected progress * 87% of school at expected attainment levels * 17% of school at greater depth * Boy are currently outperforming girls in science   Progress in science is good. This judgement is reaffirmed through monitoring of books and planning.  A subject inspection or ‘Deep Dive’ was conducted in science in Oct 2019. It concluded: *Based on this deep dive and a focused look at science provision and outcomes in Year 5 and Year 6, science is a strength.*  During the ‘Deep Dive’ children, including SEN children, were interviewed. School MEP reported:  *It was a pleasure talking to pupils. They all enjoyed science and were able to remember activities they had participated in during previous years. They spoke with clarity when asked to describe the way the teacher helped them in science and were able to use the language from the initial 10 principles of science teaching at the school.*  In a recent pupil survey, children also spoke very highly about science and the science lessons. Children reaffirmed their desire for more experiments and more practical elements to science lessons.   * Over 85% claimed to be interested in science * Over 50% said science was *‘fun and exciting’*   In Oct 2019 the school was awarded the PSQM (Primary Science Quality Mark).  This accreditation is a year-long CPD programme that focuses on developing effective, confident science leadership for whole school impact on science teaching and learning.  Monitoring of science across the school has shown:   * An extensive covering of the curriculum although there has now been gaps due to the Covid 19 school closures * Science displays with key vocabulary and pupils’ work in every classroom * Evidence of a variety of teaching strategies – practical, drama etc. * Evidence of engaging topics: heart dissections in year 6, making electrical toys in year 4 * Evidence of next step marking (in line with school policy) being used in every year group * The use of Greater Depth Statements to enhance learning across the school. * Lessons observed and work in books indicated that there was a significant amount of practical work. – *taken from MEP report* | | |