**We are Scientists**

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| **Intent**  **In Science, when a child leaves Dean Gibson we would like them to…**  **…be curious, independent and capable scientists, passionate about finding out about the world around them with the ability to raise questions about working scientifically and the knowledge and skills that it brings.**  **During their time at Dean Gibson, we would like children to develop a genuine love for all aspects of the Science curriculum and be able to relate their investigations to the real world. Children will be confident and competent in the full range of practical skills such as planning for and carrying out their own investigations.**  **We will nurture the children's inquisitive natures and guide them to use their questions by working scientifically to solve problems, understand the world around them and hopefully inspire some to go on to pursue a career in the Science industries.**  **Upon leaving Dean Gibson we would like them to have high levels of originality, imagination and innovation as well as the ability to undertake practical work in a variety of contexts.** | | |
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| **Enrichment** | | |
| Class | | Whole School |
| *Robins:*  *Nursery/Reception* | Greenland’s Farm Visit  Outdoor days with some focus on Science, including outdoor classroom, bug hotel etc.  Guided walks- look at habitat/wildlife | Take part in Space week every Autumn term.  Take part in British Science Week each Spring term.  British Engineering Competition  Go on Science inspired educational visits inc. Museum of Science and Industry, Eureka Science Discovery, Local zoo etc.  Visitors who are experts in their scientific fields.  Links with local high schools. |
| *Sir David Attenborough (Biologist- Animals)*  *Albert Einstein- (Physics- Energy)* |
| *Sparrows: Year 1* | Vet Visit  Outdoor days with some focus on Science, including outdoor classroom, bug hotel etc.  Guided walks- look at habitat/wildlife |
| *Florence Nightingale (Biologist- Nursing)*  *Carl Linnaeus (Biology- Animals)* |
| *Finches: Year 2/3* | Farm Open Day Visit  Water Workshop  Outdoor days with some focus on Science, including outdoor classroom, bug hotel etc.  Guided walks- look at habitat/wildlife |
| Mary Anning (Palaeontologist)  Joseph Dalton Hooker (Biology- Botanist Plants) |
| Swifts: Year 3/4 | Westmorland County Show  Water Workshop  Dentist Visit  Outdoor days with some focus on Science, including outdoor classroom, bug hotel etc.  Guided walks- look at habitat/wildlife |
| *Brian Cox (Physics- Particles)*  *Thomas Edison (Physics- Sound)* |
| Kingfishers: Year 5 | Nurse Visit  Eureka Science Museum Trip  Outdoor days with some focus on Science, including outdoor classroom, bug hotel etc.  Guided walks- look at habitat/wildlife |
| *Sir Isaac Newton (Physics- Forces)*  *Stephen Hawking (Physics- Space)* |
| Eagles: Year 6 | Nurse Visit  Outdoor days with some focus on Science, including outdoor classroom, bug hotel etc.  Guided walks- look at habitat/wildlife |
| *Charles Darwin (Biologist- Evolution) Marie Curie (Physicist/Chemist- Radiologist)* |
| How Science is taught at Dean Gibson | | |
| **This is how it works:**   * Lessons provided through cross curricular and Science lessons. * We will use United Learning scheme to support out teaching. * Lesson each week or double lessons every two weeks. * Clear progression of skills developed throughout school * Specific knowledge organisers for each class and unit. * Progression of knowledge developed each year building on prior learning. * Vocabulary will be taught and will be built upon each year. These will be in children's books and displayed. * Children will have had the opportunity to use a range of Science equipment and resources and develop competency in using them safely. * Children will experience their local area and use their skills practically to enhance their learning. * Workshops, trips, visitors and STEM workshops to bring units to life.   **This is what adults do:**  • Teachers work collaboratively to support each other in the teaching of Science understanding and applying current developments in the subject, and providing direction for the subject in the school.  • Teachers show enthusiasm for the subject regardless of personal capabilities.  • Curriculum leader evaluates the strengths and areas for development in the subject and indicate areas for further improvement.  • Create a positive learning environment to encourage discussion and personal opinion.  • Ensure a safe working environment especially when conducting investigations.  • Look for opportunities to use specialists and outside providers when necessary.  **This is how we support:**   * We teach Science to all children, whatever their ability, in accordance with the school curriculum policy of providing a broad and balanced education to all children. * Teachers adapt their teaching to the needs of children. * Different technologies are used to allow children with special educational needs to have access and contribute to lessons. * We will use Enquiry questions for each lesson which will build knowledge towards curriculum milestones.   **This is how we challenge:**  • Adaptive teaching.  • Additional activities to stretch learning or develop skills.  • Extra-curricular activities targeted at gifted and talented children   * Provide opportunities above and beyond the National Curriculum.   **This is how we ensure all children can access the curriculum:**  • EAL and SEN children are introduced to vocabulary before the lesson  • Peer support  • Providing equipment that may support individuals | | |
| **Impact** | | |
| **This is the impact of the teaching:**   * At Dean Gibson Catholic Primary School, the children will refer to themselves as Scientists. * Pupils can talk confidently about what they have learnt. * Pupils are aware of the importance of Science on their lives, the wider world and the environment and health of our planet. * Children understand the skills needed to be an effective Scientist. * Children know what it means to work Scientifically. * Children can generate their own ideas for scientific enquiry and investigation. * Children can write up their investigations in a way which is appropriate to their Year group. * What they learn at Dean Gibson can influence their decisions about personal choices, attitudes and values. * Children demonstrate our gospel values in their learning when reflecting on Science. | | |