**Intent, Implementation and Impact**

**Science Intent**

At Highburton CE (VC) First School our aim is to develop scientific knowledge of our children and broaden their science capital. In our lessons, subject knowledge is taught discreetly but is deepened and applied through investigations, aiming high to achieve more from their learning. This approach allows children to ask questions, analyse and understand scientific content and answer questions taking on ownership for their learning. When experiments ‘go wrong’, we encourage curiosity and engagement in order to use these observations to improve our next investigation.

As a Church of England School, every aspect of the school’s work is underpinned by Christian values. Science is seen as a key subject in providing opportunities for awe and wonder, thus promoting spiritual growth. It can also provide a means of exploring faith and values where respect can be developed. Wherever possible, we link our R.E. curriculum to other subjects.

**At Highburton CE First School we intend to:**

In our school, we implement the Developing Experts science scheme across school where science units build on each other through the strands of Biology, Chemistry and Physics. The scheme is progressive and sequenced allowing for knowledge to be revisited as the foundation for new learning. Lessons comprise of discreet scientific content and practical investigations so children are able to strengthen their learning. The scheme provides a real-life context to create realness to the scientific enquiry and Expert videos allow the children to be exposed to science in the industry to inspire our children.

**Scientific implementation**

* **Long term:** Deliver knowledge rich lessons devised from the Developing experts scheme combined with explorative learning when carrying out investigations This is inline with the National Curriculum / Development Matters progressing knowledge and skills throughout the year groups
* **Medium term:** Learning objectives and end points are clearly identified within the Developing experts scheme ensuring coverage of content.
* **Short Term:** Knowlsege is taught discretely through Developing experts lesson content paired with deepen the children’s understanding of knowledge learnt through an investigative approach and key questioning – promoting ownership of learning.
* Knowledge organisers and Rocket words stuck in books at the start of a new science unit. This allows the children to access, use and fully understand vocabulary involved in each unit. Incorrect spellings of these words and key spellings year group specific are identified by teacher when marking expected for children to respond in purple pen.
* Activities are adapted for all abilities: children who require support, work is scaffolded with vocabulary banks, differentiated challenges and adult led questioning to ensure that ALL groups of learners can access the curriculum.
* We value oracy as an important skill therefore through conversations and carefully crafted questions in each lesson, allow more able children to inquire more deeply.
* Children are assessed at the end of each scientific unit using the scheme’s end of units test. At the end of every term, we complete teacher assessment inputted onto Insights Tracker.
* Where appropriate, staff plan for cross curricular opportunities.

**Impact**

* Learning walks and book scrutiny scheduled for Spring 1 to look at how the new scheme is transpiring in to lessons.
* Monitoring use of vocabulary
* Subject knowledge and skills are consolidated throughout the unit by the children completing investigations based learning and key questions. Pupil voice to be collated in Autumn 2 to assess recall and retention of knowledge.
* Science lead to attend CPD and subject lead meetings to ensure science is taught to a good standard and good practice is shared through staff meetings and regular updates.
* Staff meeting to be delivered by subject lead to share an example lesson and good practice/resources.