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| **Holy Trinity C of E Primary School****School Improvement 2021-22** |
| **Subject** | **Science**  |
| **Staff** | **Danielle Horsley** |
| **Strategic Subject Intent** | **Intended Impact** |
| To stimulate excitement and **curiosity** by providing a high-quality, **sequential** science education so that children can grow in their **confidence** when articulating **scientific knowledge** and **conceptual understanding**, building up **scientific vocabulary** within the disciplines of biology, chemistry and physics as they progress through each Key Stage.To create **predictions** and **apply their mathematical knowledge** to their understanding of science when collecting, presenting and analysing data. To use **rational explanations** and analyse causes, and apply their learning of matters, skills and processes when **working scientifically**.To understand the uses and **implications of science**, **today** and for the **future.** | * Staff will have an improved understanding of assessment within Science, knowledge of how to differentiate between year group outcomes and ensure science skills and knowledge is progressing through year groups.
* Staff will have more confidence when teaching specific topics and when answering children’s ‘tricky’ questions about Science.
* Pupils will be excited and engaged when learning Science and ask questions within scientific disciplines.
* Improved ability of pupils’ articulating scientific concepts clearly and precisely.
* Pupils will apply their mathematical skills when taking measurements using a range of equipment and measuring tools, presenting their work, for example through tables, Venn Diagrams and graphs, and interpreting what their presented work shows.
* Improved pupil confidence when articulating or suggesting questions for investigation and creating an understanding of cause and effect in Science.
* The ability to confidently articulate predictions, methods, results and conclusions using scientific terminology.
* An improvement in pupils’ understanding of the uses and implications of science in our world today and consider its role in the future within science lessons.
* To improve children’s cultural capital through experiences such as trips, WOW days, visitors, exploring the local area etc.
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| **Subject Implementation** | **RAG** | **Comments** |
| **Autumn** | **Spring** | **Summer** |
| To implement the final twilight training session with Phil Watkins (STEM Learning Solutions) to improve staff understanding of assessment, alongside the use of Standard Files provided by STEM learning Solutions. |  |  |  | Autumn – twilight implemented for all teaching staff. Staff know how to use assessment boards to support planning and show progression within lessons, topics and year groups. Staff had a go at moderating Science work for one child in their class to decide if they were working below, at or above year group expectations. We used the assessment boards for these.  |
| To develop CPD opportunities for staff (explorify/STEM website/reach out website CPD or organised CPD within Stem Network/Ogden Trust etc) to increase teaching confidence. |  |  |  | Autumn – CPD by Phil Watkins and moderation CPD hosted by me. I offered staff training with Phil to go over science models however no one expressed interest so I will look to source other CPD. |
| To teach investigations as a question, making links to cause and effect, developing teacher and child understanding of this concept. |  |  |  | Autumn – some topics haven’t lent themselves to this yet. I will need to monitor this at the next scrutiny. |
| To promote rewards in Science (e.g. British Science week competition, Science coordinator award) |  |  |  | Autumn – began to research ‘growth’ the next Science week theme. Have looked at stickers for Science awards but need to order. |
| To review the use of pre/post tests in Science and consider new approaches to this |  |  |  | Autumn – I have trialled a new approach in my class but haven’t finished a topic yet to evaluate effectiveness. If they are more effective I will ask another year group to trial them before rolling out whole school. |
| **Funding & Resources** | **Cost (Time & Money)** | **Links to Academy Council** |
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| **Evaluation** |
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