Reviewer's feedback

School: **15988 St. Peter's C.E. Primary School**

Science Leader at school: **David Badley and Julie Ainsworth**

PSQM Hub Leader: **Neil Phillipson**

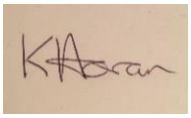
Quality Mark submitted: **PSQM**

Reviewer**:** **Kathryn Horan**

Criteria	Indicator	Observations
SL1	There is a clear vision for the teaching and learning of science	It is good to see that the creation and implementation of the school's principles and vision helped you to drive science improvement as a new subject leader. There is evidence of the principles in action throughout the Portfolio, especially in the case of everyone being involved in learning and discovery. When you next come to review your vision and principles, you could perhaps also involve governors and parents when gathering views on what 'good' science looks like at St Peter's.
SL2	There is a shared understanding of the importance and value of science	This is an area of great improvement as science is now truly recognised as a core subject, having previously been somewhat neglected. Thanks to your efforts, science is now clearly visible throughout school with meaningful displays, staff are more confident and enthusiastic and far more high-quality science learning is taking place as standard. The understanding of the value of science in the wider world has also been significantly raised by increasing awareness of topical science events and tapping into science skills and interests held by staff and parents.
SL3	There are appropriate and active goals for developing science	It is good to see that you have capitalised on the PSQM process to develop ongoing aims for science that are much better suited to the needs of the school. Your sharp focus on evaluating and addressing needs, and ensuring involvement from wider stakeholders has led to significant improvement across the board. I have no doubt that science is now, and will for a long time, be considered as a high priority and area of strength at St Peter's. Have you thought about what you would like to be included for science on next year's SDP to keep this momentum going?

SL4	There is a commitment to the professional development of subject leadership in science	You have been proactive in sourcing and completing CPD to meet your own needs, in particular taking advantage of the first lockdown period to complete a range of online CPD. Your transformation from an enthusiastic new appointee to a confident, self-aware and knowledgeable subject leader is impressive and has had clear impact on the wider staff team and children's experiences of science. To continue your professional journey, you might want to consider taking advantage of your ASE membership discount and attending their local or national conferences. (https://www.ase.org.uk/Events)
SL5	There are monitoring processes to inform the development of science teaching and learning	The overhaul of science monitoring practices this year has resulted in a regular schedule of supportive scrutiny and meaningful feedback. This has directly led to improvement in what is taking place in classrooms, as in the example you share in which a teacher was supported to better raise science capital through their lessons. Your evidence shows you have acted on all findings, including those from pupil voice, which is having great impact on enjoyment of science and varied classroom practice. As there has been so much improvement, you could consider organising time for class teachers to share good practice with each other in a 'teachmeet' style event.
T1	There is engagement with professional development to improve science teaching and learning	Staff have received CPD on aspects of science teaching identified as key needs through monitoring, delivered by the subject leader. This appears to have led to a great increase in the amount of practical science taking place in classrooms and greater emphasis on understanding the five types of enquiry. As a reviewer, it would have been good to see more feedback from staff about how they felt their CPD had helped them and what they had implemented in their classrooms as a result of it. Perhaps this could be a focus for your monitoring moving forward.
T2	There is a range of effective strategies for teaching and learning science which challenge and support the learning needs of all children	A range of teaching strategies have been introduced by the subject leader this year, most notably discussion-led strategies. It is good to see that there has been focussed evaluation of this approach and that this has allowed you to see the benefit it has had on children for whom reading and writing can be barriers to communicating their science learning. I notice that you planned to investigate Explorify in your action plan; was this resource ultimately formally reinstated with staff? It may be a useful resource to encourage your staff who remain wary about discussion-led approaches to begin engaging with the strategy.
T3	There is range of up-to-date, quality resources for teaching and learning science which are used regularly and safely	Staff have easy access to a range of resources that have been audited and added to based on need. It is wonderful to see the impact your lab technicians are having on reducing teacher workload and the pride they take in carrying out their roles. Purchasing data loggers has had great impact on pupils' use of appropriate scientific vocabulary as well as engagement in lessons. To help combat the budget restraints you mention, you could consider setting up a loaning scheme with other primary or secondary schools in your local network that would allow for free use of resources not held in individual schools.

L1	There is a shared understanding of the purpose and process of science enquiry	This has been an area of great impact with more practical science taking place, all teachers reporting they are more confident planning enquiry activities and a clear focus on using the different types of enquiry and communicating these to the children. This has led to older pupils being able to select an appropriate enquiry type and plan their own investigation, as evidenced in the wonderful example of an investigation into the five second rule! To help with your goal of ensuring consistency and progression in fair testing investigations, you could use your science display wall to share good work in this area from each class, allowing for progression through school to be made visible.
L2	There is a shared understanding of the purposes of science assessment and current best practice	This is another area of great improvement, particularly with regards to summative assessment. The raised importance of science has allowed for a greater focus on assessment data and teachers are now using quality resources to support them in making accurate judgements. There has also been improvement in formative assessment practices, with KWL grids being introduced and actively used by teachers to plan lessons which address children's misconceptions. When restrictions allow, I would strongly suggest using the ASE PLAN resources with staff to carry out a shared moderation staff meeting to help with your goal of ensuring teacher assessment judgements are accurate. (https://www.ase.org.uk/plan)
L3	There is a commitment to developing all children's science capital	A lot of work has gone into raising children's science capital at St Peter's and your evidence shows that it has really paid off. Drawing on STEM professionals in the local community, especially parents, has allowed children to see the broad range of opportunities available to them, as well as highlighting the importance of science in the 'real world'. Combined with the dedicated area for science capital links on planning documents and children's regular access to topical science news through ReachOut Reporter, this has led to great impact on pupil aspirations and interest in science. A wonderful achievement!
WO1	There are appropriate links between science and other learning	Intentional, explicit links have been made between English and maths in science and you are working towards this becoming a regular feature of classroom practice, rather than something that only takes place in special science weeks or days. Extended writing activities with a science context are a great way to allow children to demonstrate their learning and their understanding of scientific vocabulary; to allay any concerns about the 'scientific value' of this exercise, I would suggest that the writing itself is completed during literacy time, leaving plenty of time for scientific skill development in science lessons!
WO2	There are appropriate links with families, other schools, communities and outside organisations to enrich science learning	A range of experiences have been facilitated for children, drawing on the local community, online resources and organisations such as Linnean Learning. The sharp focus you have on the impact of each experience and how it could be improved demonstrated in your Calendar of Events is impressive and will no doubt lead to the offer for children becoming considerably better each year. To support with your plans to move more such experiences online to minimise disruption, you might want to look into the online 'I'm a Scientist' enrichment opportunity. (https://imascientist.org.uk/)

Overall comment	It appears that the PSQM journey has been a truly transformative process for both science at St Peter's and for yourself as a subject leader. Your enthusiasm for science and for continual improvement has clearly spilled over and been caught by the other staff and pupils! St Peter's has become a great place to learn (or teach!) science thanks to your hard work and clear focus on addressing specific, identified needs. Well done!
This submission meets the criteria for PSQM	 **21/03/21** **Congratulations to everyone at St Peter's CofE Primary School and in particular to David and Julie on the achievement of the Primary Science Quality Mark. It is wonderful to see how you are developing science across the school despite the challenges of the past year.**  **Helen Sizer** **Deputy Director: Primary Science Quality Mark**