

## Review feedback (R23 Autumn)

School: 158111786 Kirkdale St Lawrence CE Primary

Science Leader at school: Helen Burgess

PSQM Hub Leader: Eleanor Norris

Quality Mark submitted: **PSQM**

Reviewer: Jane Winter

Strand	Aim and PSQM Criteria	Observations
<p>SCIENCE LEADERSHIP AIM: Science subject leadership has been strengthened and developed. Science is valued and improved through the development of effective processes for subject leadership.</p>		
SLa	<p>There is a clear vision for science, created and implemented by teachers and children, through principles for teaching and learning.</p>	<p>The viewpoints of both children and colleagues were taken into account when deciding the principles upon which to base the shared vision for the school. These have been presented in a colourful and eye-catching poster which has been shared amongst the wider school community as well as being displayed in classrooms and referred to as part of the moderation process. The impact of this shines through the rest of the submission where the principles can be seen in action.</p>
SLb	<p>Strategic support for subject leadership is provided and includes:</p> <ul style="list-style-type: none"> <li>• Focussed CPD for subject leader</li> <li>• Regular release time</li> <li>• Resources to facilitate development in science.</li> </ul>	<p>The subject leader has thought carefully about her own CPD needs when choosing which training to attend. However, she has also cast her net wide and made the most of opportunities provided by PSQM to access a wide range of CPD including several spotlight videos and RSC funded training sessions. She has also attended in person training events delivered by external providers. It is extremely positive to read how quickly these experiences have been shared with colleagues, such as her eagerness to share her newfound understanding of batteries. The subject leader has also made connections with the wider science community such as the ASE (to which she belongs), Great Science Share, Ogden Trust and CLEAPSS</p>
SLc	<p>There is a monitoring cycle, including pupil voice, that informs actions taken and the development of science.</p>	<p>It is clear that interventions in school are based upon identified need through monitoring including pupil voice, speaking to colleagues and looking at children's work. This can be seen in the CPD provided to colleagues which was based upon observations made by the subject lead of discrepancies between the agreed vision and principles and practices in place at the start of the PSQM process. Interventions have been followed by further monitoring to check for impact, as can be seen in evidence collected of the teachers' and children's growing confidence in using the different enquiry approaches.</p>

TEACHING AIM: Science teaching has been strengthened and developed.  
Subject leadership responds to development needs in science teaching.

<b>Ta</b>	There is provision and signposting of relevant internal or external professional development and support with which staff engage.	CPD provided by the subject leader is based upon clearly identified needs, such as the necessity to increase their awareness of enquiry approaches. The needs of individual teachers have also been taken into account, for example the subject leader and colleagues in EYFS attended some online EYFS training. Taking the time to attend specialist training alongside colleagues in this way has the potential to lead to much more meaningful change. It is also positive to see that new staff are rapidly given the training that they need to teach science consistently with existing staff.
<b>Tb</b>	Teachers are supported to use a range of effective strategies for teaching science which challenge and support the learning needs of all children.	It is understandable that getting to grips with a new curriculum meant that teachers felt that all their energy was taken up with familiarising themselves with the unfamiliar curriculum rather than adapting it to their learners needs. It is extremely pleasing to read, therefore, that they were nevertheless inspired by CPD to use a range of strategies for teaching and assessing science. The subject leader has followed this up by giving less confident teachers extra support. The newly equipped Y1 classroom to allow a continuous provision approach sounds particularly exciting; it is good to know that provision has been made for independent investigations within this environment.
<b>Tc</b>	Resources are audited annually, well-organised and accessible, so that children can regularly and safely use appropriate practical and digital resources, information texts and the outdoor environment.	The use of upper KS2 children to support teachers to collect and return science equipment is an inspired way to give children responsibility and ownership. It may even lead to more of the equipment being returned to the correct box than if it is left to hard-pressed teachers, as children have clearly risen to this challenge. The laminating of CLEAPSS advice to store with the boxes will support teachers to understand how to use the equipment safely. The school has thought carefully about the science texts that are available to children to support the development of their science capital and plans are in place to purchase more in the future.

LEARNING AIM: Science learning has been strengthened and developed.  
Subject leadership develops teachers' practice.


<b>La</b>	Children are taught to use different enquiry types to answer scientific questions about the world around them, through the use of scientific enquiry skills.	The interactive staff meeting where colleagues worked together to identify the most appropriate enquiry type for a range of investigations meant that all staff have a sound understanding of the enquiry approaches. The use of the SEERH symbols to support children to use them, as well as recruiting children from science club to find ways to reinforce the learning has meant that now most children are starting to talk about the enquiry type that they are using and why. The children's FROGS mnemonic is inspired, and I have no doubt that both teachers and children will find it helpful.
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<b>Lb</b>	A range of strategies and processes for formative, summative and statutory assessment are used, which reflect a shared understanding of the purposes of assessment in science and current best practice.	It is good to see that teachers are supported to use a range of formative strategies such as Explorify, Concept Cartoons, Kahoots and card sorts to establish children's level of understanding and learning need. Ensuring that assessment takes place at the start of a topic, as well as being an integral part of teaching ensures that colleagues are able to react quickly 'in the moment' thus ensuring maximum benefit from science lessons. The subject leader has identified a next step of assessing disciplinary as well as substantive knowledge. Teachers may find this <a href="#">Assessing Working Scientifically</a> resource useful to help them to do this.
<b>Lc</b>	Initiatives that encourage all children to think that science is relevant and important to their lives, now and in the future, are supported and promoted.	The increased number of children now considering a career in science is wonderful to see and testament to the work done at Kirkdale St Lawrence to raise children's aspirations. This is not surprising considering the range of exciting visitors into school who have served as role models and opened pupils' eyes to the range of different job opportunities. It is also good to see that the school starts early to get the message across as EYFS children have also been involved. The school may find the <a href="#">NUSTEM</a> resources useful to help them to build on the valuable work that they have already done.

WIDER OPPORTUNITES AIM: Science has been enriched.  
Children's experiences of science are enriched.

<b>WOa</b>	Curriculum planning links science to other areas of learning.	It is good to see that children are given the opportunity to use maths within science lessons starting from foundation stage. Similarly, the school provides science linked texts suitable for all ages and there are plans to increase the range of books available. The next steps include a plan to make more links between English and science. Teachers may find it profitable to use English lessons to write about previous science experiences so that teachers can concentrate on science learning objectives in science lessons and English learning objectives in English lessons. The ammonite linked art is lovely and the school may be interested to build on this approach using the <a href="#">SAW trust</a> resources.
<b>WOb</b>	There is participation in some external initiatives, topical science events and family learning.	There is evidence throughout this submission of a range of exciting visits and activities which have engaged and motivated children as well as raising their science capital. The science advent calendar sounds interesting and was a great way to ensure that science learning did not get lost over the Christmas period. Work to involve families more have proved successful with children taking part enthusiastically, even with work that was not meant for them. The school may be interested in the free <a href="#">IndusTRY at home</a> activities which could be shared on the school website to build on this positive work.

<b>Final Questions – comment</b>	It is so good to hear how enthusiastic you are to continue the momentum with science after the PSQM year as you have achieved so much already. The increased confidence and enthusiasm of colleagues is particularly pleasing to read about as it will have a massive impact on children's science experiences and will make the subject more enjoyable for teachers as well. No wonder children's enthusiasm has already skyrocketed. You have every right to be extremely proud that your hard work has paid off.
<b>Additional Points</b>	Your reflections were well over the word limit. I know that it takes longer to write more concisely. However, it makes it harder for the reviewer to find the evidence needed when the reflections are too long.

<b>Overall comment</b>	It has been a pleasure to review this submission and to see how much has been achieved at Kirkdale St Lawrence over the course of the PSQM process. I have no doubt that science at the school will continue to go from strength to strength. I hope to see you back in three years to renew your accreditation and perhaps consider going for Gilt? In the meantime, congratulations on your wonderful achievement.
	Reviewer's signature 

**Congratulations to you all on achieving the Primary Science Quality Mark. We wish you every success as you continue to develop science in your school.**

