

Review feedback (R23 Spring)

School: 160917454 Leyland St James' CE Primary School

Science Leaders at school: Sarah Blundell and Elaine Oral

PSQM Hub Leader: Shehnaz Vorajee

Quality Mark submitted: **PSQM**

Reviewer: Alex Farrer

Strand	Aim and PSQM Criteria	Observations
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.		
SLa	There is a clear vision for science, created and implemented by teachers and children, through principles for teaching and learning.	The profile of science has been raised at Leyland St James' with the development of the new science vision and principles which have been shared in assembly time and are on display to help pupils become familiar with them easily. Staff developed the vision and principles collectively and they have been used in a variety of ways, including by teachers as they plan their lessons. Monitoring activities such as pupil voice and book looks have shown that the vision and principles are well embedded with children relating to them in lessons and reporting that they now see themselves as scientists. Moving forwards, it would be useful to review the vision and principles, taking account of the children's views for further development in the year ahead.
SLb	Strategic support for subject leadership is provided and includes: <ul style="list-style-type: none"> • Focussed CPD for subject leader. • Regular release time • Resources to facilitate development in science. 	The renewed focus placed on science has clearly led to a series of key developments. The regular SL release time has been very beneficial and has enabled the SL to carry out a variety of monitoring activities to identify what to focus on, support teachers with planning, work closely with a primary science consultant on topics such as progression in enquiry skills, as well as work collaboratively with the ECT to develop her role. Improvements have been made such as an increase in staff knowledge and confidence, and greater pupil engagement and enthusiasm (as shown by pupil voice). Ideas gained by the SL from a variety of sources (for example from the PSQM Spotlight on Questioning) have been cascaded to other staff and been particularly beneficial when supporting teachers requesting additional support.
SLc	There is a monitoring cycle, including pupil voice, that informs actions taken and the development of science.	Science teaching and learning has been monitored through a clear cycle that included book looks, pupil voice, and staff feedback. This approach has ensured that the SL has a clear picture of the impact of the new initiatives that have been adopted and can also readily identify what to focus on next. Initial monitoring showed that there was a need to focus on working scientifically skill progression and the SL received support with this from a primary science consultant. Subsequent monitoring found that more scientific vocabulary was being used by

		pupils and there was much more consistency in the teaching of enquiry types and styles of questioning. As well as evaluating the effectiveness of current practices the subject leader has also made sure that post-PSQM actions will ensure improvements continue beyond the PSQM year.
TEACHING AIM: Science teaching has been strengthened and developed. Subject leadership responds to development needs in science teaching.		
Ta	There is provision and signposting of relevant internal or external professional development and support with which staff engage.	The SL has provided targeted CPD in staff meetings including sessions on assessment, science capital, and how best to use Explorify strategies. This CPD has been well received by teachers and helped them to gain many ideas. Staff have also been supported with ASE membership which has meant that they have become more familiar with current best practice, and in addition, ReachOut CPD has helped them to improve their confidence in areas they were unsure about. The ECT has benefited from a STEM Learning course on primary science, and she was able to cascade useful resources and ideas to other staff. Teachers requesting additional support have appreciated the 1:1 support from the SL, and staff have embraced new ideas as shown by feedback in the portfolio.
Tb	Teachers are supported to use a range of effective strategies for teaching science which challenge and support the learning needs of all children.	Teaching strategies have been evaluated using the PSQM criterion activity at a staff meeting and teachers have trialled and evaluated teaching strategies such as drama activities and using working walls. Explorify activities have been championed by the ECT and have been popular with staff and children, particularly Odd One Outs which pupil voice has evaluated positively. There has been a greater focus on outdoor learning strategies which pupil voice has also evaluated positively. Utilising the new Inclusion materials on Explorify would be a useful next step to continue to support staff with using effective strategies for teaching science to challenge and support all.
Tc	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 school has audited resources and checked that they have all the resources needed to support the teaching of the science curriculum. The use of non-fiction texts has been extended after seeking advice from pupils which has helped to inspire curiosity in each science topic. Opportunities for outdoor science learning have been increased which has made a positive impact on children's health and well-being as well as their science learning, and plans are being made to expand this further. Evidence of strategies used to ensure that children safely use equipment in science hasn't been included in this submission, and it would be a good idea to use the CLEAPSS Primary website as a safety reference and consult some of the excellent practical activity suggestions, especially those for outdoor learning practical activities.
LEARNING AIM: Science learning has been strengthened and developed. Subject leadership develops teachers' practice.		
La	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 different types of science enquiry are now beginning to be much better understood as shown by children using the new stickers correctly. Scientific enquiry symbols are being used on displays raising the profile of the different types of enquiries. The high profile in staff CPD sessions, as well as the sessions with the science consultant mapping progression, will ensure that staff continue to discuss science enquiry. Monitoring has shown that both staff and pupil confidence has increased in this area. It might enhance the post-PSQM plans for La to hold a whole school investigation. This would be a good way to look at progression of science enquiry skills across year groups and share ideas and solutions to any problems.

Lb	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.	Consideration has been given to science assessment and the SL has benefited from a range of CPD on the topic. This learning has led to initiating a range of strategies such as a trial of the TAPS resources in week 4 of each science topic, carrying out formative assessment of learning on trips as well as in the classroom, using various Explorify resources for formative assessment and PLAN documents to help with staff confidence when assessing. Staff have received training, evaluated the various assessment techniques, and had the opportunity to give feedback at subsequent staff meetings. The evidence in the portfolio shows strategies that have had impact.
Lc	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.	There have been a variety of initiatives to help build science capital dimensions with activities such as the Earth Hour and PSTT's A Scientist Just Like Me raising awareness and helping children to become more aware of the variety of STEM careers that are possible. The curriculum drivers of "diversity" and "possibilities" have supported this very well. As plans are firmed up for next year in this area the 'Primary Science Capital Teaching Approach Handbook' will be a useful resource to provide ideas to 'tweak' lessons to help children connect science with their own lives. As staff are already familiar with Explorify, they may now be keen to try using the "Have you ever?" questions in lessons as an additional technique to further elicit and value the scientific experiences and interests that the children have.

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

WOa	Curriculum planning links science to other areas of learning.	A variety of initiatives to link science with other curriculum areas have ensured children's science experiences have been enriched, science profile has been raised and the importance of science linking to other subjects has been shown. Examples include using non-fiction texts in science, the Clean Air Crew, and a trip to Southport's Eco Centre. Subject leads for maths and for science have worked closely together and monitoring has shown that children now see the importance of maths in science, and pupil work shows that they are using their maths skills in science lessons. As the school puts more detail into cross-curricular planning, the RSC science ideas webs might give some additional ideas for links between science and other subject areas to make further enhancements.
WOb	There is participation in some external initiatives, topical science events and family learning.	It is great to see the range of opportunities there have been for pupils at Leyland St James' to engage with external organisations and topical events such as the TriKidz event championing healthy bodies and the Animal farm trip (where photos from the trip were used to further engage parents). It is also fantastic to see that the school have made plans to enrich science going forward such as the monthly challenge in the new science newsletter and the planned STEM club. You might find the My Science Club resources useful for this – do remember to check their free resources section as well as their paid subscriptions. Harnessing the interests of the children with topical news events might be another useful next step by using such resources as 'Twig Science Reporter'.

Final Questions – comment

Congratulations on the way you have managed to begin to shift attitudes towards science and create a "science buzz" around the school. What a great foundation to now build on as you go further with your plans next year.

Overall comment	This submission meets the criteria for PSQM. I have very much enjoyed reading about all that you have implemented and the successes that you have had. Congratulations on the hard work and effort from everyone involved. It has clearly paid off and I am sure that the school will now be able to build on these foundations and take science from strength-to-strength next year. Well done and good luck for the future!
	Reviewer's signature <i>Arner</i>

**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.**

