

Reviewer's feedback

School: 17897 St. Gabriel's RC Primary School Rochdale

Science Leader at school: Rachel Gray

PSQM Hub Leader: Helen Spring

Quality Mark submitted: **PSQM**

Reviewer: Sally Patterson

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.	Collaborating and establishing the principles and vision at St Gabriel's R. C. Primary School has clearly been fundamental in raising standards and expectations of science teaching and learning. All staff had ownership and so now better understand what good science teaching and learning might look like in their classrooms and children also have raised expectations of science entitlement and the teaching and learning they can expect to support them to become young scientists at St Gabriel's.
SLb	Strategic support for subject leadership is provided and includes: - Focussed CPD for subject leader - Regular release time - Resources to facilitate development in science.	Regular release time for the SL, to monitor the subject and to attend quality professional development activities such as PSQM Spotlights and the SEERIH network events, clearly demonstrates the high level of strategic support and recognition of the value of science. Its core place in the curriculum is established and the investment in time is paying off, thanks to the SL's energy and commitment in sharing knowledge gained and inspiring and leading others effectively. As a result of this regular professional development the SL has been able to cascade and support teaching staff to willingly take on new approaches and develop their teaching and thus the experiences they provide for the children. An adequate budget given to the SL has also allowed for a wide variety of resources to be purchased and for all teachers to be more aspirational. They can consider resources needed for quality teaching experiences rather than working within the constraints of limited or out of date resources.
SLc	There is a monitoring cycle, including pupil voice, that informs actions taken and the development of science.	Pupil voice has been a key monitoring strategy in identifying areas of development and strengths. The children wanted more practical work and disliked the onerous writing tasks that followed an investigation. The SL listened and has appropriately supported teachers with the tool kit and resources to make lessons more practical. The SL has provided guidance to staff, they understand that written activities can be focussed on a specific skill and does not need to be full experiment write ups every time. Introducing curiosity chat/starters and knowledge organisers, again show the children's voices were heard and the SL has been very proactive in addressing the needs and concerns

		of the children and equipping the teachers with the skills and support necessary to adapt their teaching styles. It is great to see that staff voice also has an important place and the SL has a clearer picture of the support staff may need in the future and the progress made and impact on new strategies that have been introduced. This rigorous monitoring cycle focussed on new initiatives rolled out and taking a variety of forms will ensure that going forward, the SL can continue to support pupils and teachers to keep science teaching and learning standards high. Your next steps to undertake moderation activities across the school to ensure judgements are consistent and reliable is appropriate. The ASE PLAN Examples of Work Units would be an excellent starting point here.
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 subject lead has been proactive in cascading new knowledge to all the staff through timetabled staff meeting slots and through regular informal conversations, face to face and via email. New staff have been very well supported by the SL through documents created and 1:1 sessions of support. Great to hear that you are recommending Reach Out CPD to your staff, an excellent resource for improving teachers K & U of a unit of work before delivery and it can also help inspire creative ideas for working scientifically. Although many new initiatives and ideas have been trialled, these seem to have been taken on positively and staff have willingly engaged to trial different approaches in their classrooms.
Tb	Teachers are supported to use a range of effective strategies for teaching science which challenge and support the learning needs of all children.	A range of approaches, for example, using Kahoot quizzes, floor books, success criteria, retrieval mapping, dual coding and scaffolding have been cascaded to staff after the SL has received further training. It is good to see evidence of so many of them trialled in classrooms and that the SL will be monitoring these approaches to see which have the most impact in raising standards of science teaching and learning and which support the needs of all learners the most. Some teachers may become 'experts' of an individual approach and this is a great opportunity to share the expertise of teachers who have seen impact in their own classrooms and have professional dialogue reflecting on what has worked and what was not as effective as expected.
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 SL has organised and created an inventory of the resources available so all staff can make better use of resources to raise standards and engage children more practically in science teaching and learning. It is good to read that the SL will continue to ensure resources stay replenished and fit for purpose. The information texts purchased have supported each unit of work and children are benefitting from reading for pleasure as much as for gaining knowledge and research during lessons. It is great to read that the school is a member of CLEAPSS and that this membership not only generates ideas for teachers but also supports them in ensuring they have the latest information about using resources safely. Consumable resources, like plasticine, also have their place and training attended on making models to support learning is now an effective strategy used in classrooms and this, with a greater range of practical equipment available, has increased pupil engagement. The SL has recognised that the outdoor learning environment is also a valuable resource that can enrich the children's learning in science. and has recognised that this is an area to be further developed in the future; the summer term will be an ideal time to launch this. Together with the ideas from the book purchased, there is CPD available for outdoor learning on the PLAN website that you may want to consider.
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 SL has made changes to the original need, understanding that for children to work more independently they needed stronger foundations of understanding and regularly experiencing the different types of enquiries. Monitoring on Seesaw and through the planning grids shows that a range of enquiry types are happening within the school, and this will continue to be embedded and monitored.
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.	Following quality CPD from the SEERIH network the SL introduced 'Two page spread' activity in KS2 to summarise children's learning at the end of a topic. It will be interesting for the SL to hear what the children thought of that activity and if it is a helpful way of recalling and retaining some of the key information learnt for the children as well as another way of evidencing knowledge and understanding. A range of strategies are being used to aid teachers' assessments for learning including Kahoot, KWL grids and teachers are using this to generate starting points for teaching and for identifying misconceptions and gaps which can be planned for. Marking to improve has also been evidenced in a year 3 and 4 class, which is a great way of consolidating children's learning or deepening their learning with another challenge. TAPS focussed assessments are a great starting point to help teachers focus on a single written element of a working scientifically skill during an investigation and great to see the Year 2 evidence of gathering and recording data only and not the whole investigation. All the strategies rolled out will need further evaluation and it will be interesting to see which of the approaches has had the greatest impact so far on science teaching and learning. The whole school Summative Assessments Target Tracker is essential for teachers to identify those gaps that may now exist because of Covid. The ASE PLAN Progression documents are ideally placed to see prior knowledge for new teaching topics so teachers can go back a step or two to ensure the foundations are secure.
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.	As a result of Covid you have made adaptations to your original plans and tried to build links with parents through your online communication tool Seesaw. Going forward you intend to invite parents into schools to be part of Science Events and will also use the fantastic SEERIH Science4families resource to support you. The recent launch of a NHS resource, efforts to incorporate more black history and through visits by STEM Ambassadors and other Science Workshops a start has been made in raising career aspirations and challenging stereotypes. It will be great if parental response to requests later in the term are successful and children will experience members of their family and community as role models they can relate to. Plans to continue to train teachers on the science capital teaching approach and tweak planning to relate it more to children's lives and experiences will be an effective way of increasing children's science capital further. It is good to see KS2 children learning and engaging with COP26 and considering their own footprint and how they can make a difference.
WIDER OPPORTUNITIES AIM: Science has been enriched. Children's experiences of science are enriched.		
WOa	Curriculum planning links science to other areas of learning.	Monitoring has shown there is some excellent practice happening across the school of embedding other curriculum subjects that could be shared and developed further. Planning and using linked texts in Year 4 and applying learnt knowledge in year 5 and year 6 to create a shadow puppet/light blocker relating to work in history are good examples. As are, using Scratch in computing to reinforce science learning and using the curiosity cubes in EYFS to encourage speaking and listening. Further monitoring and collaborative planning to exploit these links will be needed and it is good to know that the intention to action this is in the post PSQM Action Plan.

WOb	There is participation in some external initiatives, topical science events and family learning.	Covid has affected progress of the original aim of enriching children's experiences through afterschool clubs and outside organisations. However, as restrictions have eased, steps are now in place and teachers are beginning to investigate inviting STEM Ambassadors into schools and considering external science clubs like Mad Science. With the Great Science Share coming up it will be great if this can be an opportunity to invite parents back into schools once more to share their learning. Again, the SEERIH Science4families resource has excellent ideas. It is great that the children have engaged in topical learning, for example COP26, Twig Science Reporter is another quality online resource that may help you bring more regular and topical news stories to the children which could also be shared with parents through your online communication tool Seesaw, for example by creating a school newspaper.
Final Questions- comment	The children of St Gabriels R.C. Primary School have benefitted enormously from the SL and all teaching staff who have tirelessly reflected on what they teach and how they teach, whilst considering the impact of this on their children. Teachers' professionalism to take on board change and to trial new ideas and the excellent direction and support provided by the subject lead must be congratulated. It is great to hear that both teachers and children have been inspired by this journey.	

Overall comment	I feel privileged to have had the opportunity to review your PSQM submission and enjoy the evidence captured of your school's journey in what have continued to be challenging times. With the continued support of the SLT, and through your strength of leadership, I have no doubt that science will continue to go from strength to strength at St. Gabriel's R.C. Primary and I wish you continued success. Congratulations on achieving PSQM. The children are truly inspired to learn, and you should all be very proud of your achievements.
This submission meets the criteria for PSQM	Reviewer's signature and date Sally Patterson 15th April 2022 Congratulations to Rachel and all at St Gabriel's on a well-deserved Primary Science Quality Mark. It's wonderful to see the progress you have been able to make during a challenging year for everyone. I wish you every success with the continuing development of science at your school. <i>Neil Phillipson</i> Neil Phillipson, May 2022