



PSQM INFORMATION

This document provides information about PSQM; please share it with colleagues. If you have any questions or would like to request a registration form, please contact PSQM on psqm@herts.ac.uk or call us on 01707 281 034. We are always glad to talk to teachers, subject leaders and headteachers about PSQM!

University of
Hertfordshire **UH**



Introduction

During the PSQM year subject leaders evaluate and reflect on the quality of science teaching and learning in their school, plan to improve it, carry out their plan and then consider the impact. In addition, subject leaders forge new links both within and beyond their school and work collaboratively with colleagues. The pupils' voices are heard because they will have their own valuable opinions about what good quality science teaching and learning looks like. The profile of science will rise!

Primary Science Quality Mark is not like other quality marks: it is a yearlong school improvement programme which provides professional development for around 600 new and experienced subject leaders each year. PSQM enables confident, knowledgeable, reflective leadership which improves how science is strategically planned and taught across the whole school.

As well as attending CPD sessions with the other subject leaders in your local hub and having access to a wide range of resources to use in school, you will receive personal support throughout the year, from your PSQM Hub Leader and the team at PSQM HQ.

In a year's time you could be proudly reflecting on the evidence of the improvements to teaching and learning science in your school.

"How amazing it is to know that my work has changed the passions and learning in science of so many young people. Nothing beats that"

Science Subject Leader, June 2021



What is the PSQM process?

It takes one year to complete the PSQM programme and achieve the accreditation which is valid for **3 years** from the date awarded. Schools begin either in the autumn or spring term.

Cohort	Start date & training session 1	Deadline for final submission for accreditation	Review period	Notification of accreditation outcome
Autumn	September/October	June (following year)	July-August	September
Spring	March/April	March (following year)	April-May	May

The science subject leader (plus another optional member of staff) joins a hub of schools, led by a PSQM hub leader, an expert in primary science who will mentor participants throughout the year. PSQM provides bespoke resources to support the science subject leader which are available on the PSQM Virtual Learning Environment (VLE).

PSQM successfully addresses concerns about science curriculum profile and design by providing a framework and supporting subject leaders to evaluate and develop provision across the whole school.

- PSQM will enable you to develop and articulate a clear intent and aspirational vision for science. The process of achieving a PSQM will raise the profile and quality of science across the whole school.
- You will be supported to effectively implement a curriculum for science that is informed by research evidence and best practice data. You will evaluate current provision for science and put in place a development cycle that will ensure sustained progress in science across your whole school.
- You will evidence impact on pupils, teachers and the wider community.

PSQM also supports schools to plan next steps to deliver beyond this first year as part of their submission and continues to support schools by providing access to bespoke resources on the PSQM VLE and additional CPD sessions funded by the RSC.

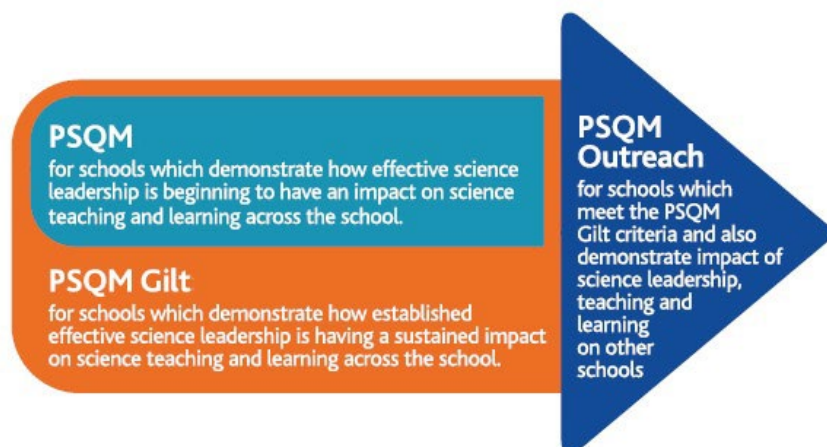
PSQM is a CPD programme for subject leadership in science with the aim of whole school improvement. Subject leaders lead the PSQM process in school, but this does not mean that achieving PSQM is only the subject leaders' responsibility. To ensure sustainable improvements, it is crucial that everyone shares in the process. [Click here](#) to see a full breakdown of what everyone in school will do during the PSQM year.

"The PSQM allowed me to think carefully about my leadership and where I needed to improve. The steps of the process also allowed me to look deeper into the teaching and learning of science and the areas that needed to be developed, how I could do it and the impact it had. It gave me a fantastic understanding of science across my school." Science Subject Leader, May 2022



What are the three Primary Science Quality Marks?

There are three different Primary Science Quality Marks to ensure that all schools can benefit from the PSQM programme, whatever the starting point. Science subject leaders will agree with their PSQM hub leader which of the pathways they will follow at an early stage in the programme.



Differentiation is by starting point. The PSQM programme of supported self-evaluation will enable your school to achieve whichever of the three quality marks is appropriate:

The Primary Science Quality Mark is awarded to schools where effective science leadership is beginning to have an impact on science teaching and learning across the school. At the start of the programme science may have been on the backburner for a while, but the school is committed to raising the profile and quality. The subject leader may be new, science not yet on the SDP, but there is energy and desire to improve leadership and provision.

PSQM Gilt is awarded to schools where established effective science leadership is evidently having a sustained and consistent impact on science teaching and learning across the school. This is the quality mark for returning PSQM awarded schools to work towards, or for new schools where the quality of science teaching may already be high in some places but is inconsistent; where systems for monitoring science are already established but the development cycle is not yet fully established; where enrichment activities take place but are not systematically planned and evaluated.

PSQM Outreach requires schools to demonstrate the high-quality science teaching and learning across the school that is necessary for the PSQM Gilt and also to have substantial impact beyond their own school. Working towards this quality mark will support schools to evaluate and improve the impact of outreach activity as well as to consolidate and grow the good practice within the school.

What is the PSQM self-evaluation and development framework?

The PSQM self-evaluation and development framework consists of 4 aims (5 for PSQM Outreach) for primary science.

SUBJECT LEADERSHIP Aims – all quality marks
Science subject leadership is strengthened and developed through: A. the creation and implementation of a clear vision for science; B. strategic support enabling improvement to take place; C. an effective monitoring and improvement cycle that informs development in science.
SCIENCE TEACHING Aims – all quality marks
Science teaching is strengthened and developed through: A. engagement with professional development; B. use of a range of effective teaching and learning strategies; C. regular and safe use of up-to-date quality resources.
SCIENCE LEARNING Aims – all quality marks
Science learning is strengthened and developed through a shared understanding of: A. the purposes and process of science enquiry; B. the purposes of science assessment and current best practice; C. the importance of, and strategies for, developing all children's science capital.
WIDER OPPORTUNITIES Aims – all quality marks
Science is enriched by: A. cross-curricular planning that links science to other areas of learning; B. provision of a variety of opportunities that deepen and extend learning.
This final section relates only to schools aiming to achieve PSQM Outreach
PROFESSIONAL DEVELOPMENT Aim (PSQM Outreach only)
There is a commitment to lead professional development and learning in science in other schools.
AND either LOCAL ACTIVITY or WIDER ACTIVITY Aim (PSQM Outreach only)
There is a commitment to work with other community groups and organisations to develop their science teaching and learning.
OR
There is a commitment to share expertise in science teaching and learning beyond the immediate community.

What does PSQM cost?

PSQM costs **£925** (reduced to £625 for schools with fewer than 100 pupils).

However, full funding is available for schools in East Riding from the Dogger Bank Wind Farm community fund.

This includes:

- Delivery of the full PSQM school improvement programme for primary science
 - **6** professional development sessions (totalling 12 hours) for science subject leader (and additional member of staff – optional)
 - **1 year** online mentoring and support from a dedicated PSQM hub leader
 - **2 year's** access to all PSQM resources via the PSQM VLE, including webinars and spotlight sessions covering all aspects of science subject leadership, teaching and learning
 - a framework for self-evaluation and development
 - a certificate for the school on successful completion of the programme
 - The accreditation is valid for **3 years** from the date it is awarded



In addition, thanks to its supportive partners and stakeholders, PSQM offers many extra benefits and links contacts to participating schools.

Additional CPD funded by the Royal Society of Chemistry

The Royal Society of Chemistry (RSC) provides bursaries for a programme of additional funded primary science CPD sessions to meet hub wide development needs or enhancement opportunities. These free CPD sessions are offered exclusively to schools who are currently taking part in the programme and **for the next 3 years**, until their accreditation expires.



Discounted Association for Science Education (ASE) membership

The ASE is a lively, friendly, professional community that supports science subject leaders to develop excellent science teaching and learning. The PSQM School Membership scheme offers 20% off Primary School membership, and includes:

- Ticket to the ASE conference
- regular editions of The Primary Science Magazine;
- access to The Primary Science Leaders' Survival Guide;
- member resources on ASE website

For more detail visit <https://www.ase.org.uk/psqm> and for membership queries, please email membership@ase.org.uk



Access to a wide range of organisations and resources

Subject leaders are invited to 'opt-in' to the PSQM newsletter which includes information from our partners and stakeholders about new resources, CPD, events, competitions and opportunities to develop science, or be involved in research into primary science.

What will everyone do?

What will science subject leaders do?

To meet the requirements for achieving a quality mark and to improve science subject leadership with consequent positive impact on teaching and learning, subject leaders should:

- attend the compulsory training sessions. Two members of staff from a school may take part. If there is only one subject leader in a school, a member of SLT, the science governor, another teacher or a TA may attend as well. This is highly recommended;
- complete all required tasks by the agreed dates;
- carry out monitoring and development activity in school;
- show commitment to own development as leader of science: engage with suggested reading, networks and organisations;
- lead colleagues to complete the actions on the school's PSQM *Action to Reflection Planner*;
- communicate with the Hub Leader throughout the PSQM process;
- respond to the Hub Leader's feedback.

What will SLT do?

To maximise the impact of participation in PSQM, school leadership should actively support the subject leader throughout the PSQM year:

- complete the PSQM Initial Self-Assessment with the science leader(s) and agree the appropriate quality mark (*two discussions*);
- enable the science leader(s) to attend the compulsory PSQM training (*equivalent 2 days*);
- provide time during staff meetings for the science leader(s) to work with colleagues on developing a vision, principles and to share resources and professional learning (*recommended 3 sessions during year*);
- provide release time for the science leader(s) to carry out monitoring and development activity in school (*recommended one day per term*);
- provide time for the subject leader to complete action planning, monitor progress against the action plan, assemble core documents and write reflections (*recommended 3 days total*);
- communicate with governing body about PSQM process and expectations;
- read the submission, add comments if requested, and discuss feedback sent with notification with subject leader(s);
- celebrate the award of PSQM widely!

What will the PSQM hub leader do?

PSQM hub leaders are experts in primary science development and practice, trained and supported by the PSQM leadership team. He or she will be by the subject leader's side (virtually) through the PSQM year, becoming a trusted friend; he or she is the expert who guides and keeps the subject leader on track, provides an understanding, listening ear and is the subject leader's greatest fan. He/she will:

- provide equivalent 2 days training, spread over the year;
- agree with the subject leader which quality mark is appropriate;
- give constructive feedback on the action plan;
- support the subject leader to monitor progress against the action plan;
- give constructive feedback on the final reflections and core documents;
- enable the subject leaders in the local PSQM hub to work together to share ideas, challenges, successes and failures, developing a genuine community of practice.

What will teachers do?

Teachers and support staff in school will share in the PSQM process by:

- contributing to the development of the school's vision and principles for science;
- participating in professional development activity led or facilitated by the subject leader;
- evaluating new teaching strategies and resources;
- engaging with whole school science activities;
- sharing planning and pupil outcomes as evidence for the PSQM submission.

What will children do?

Children play an important part in the PSQM process. Their voices and outcomes will influence development, and their work and attitudes evidence impact. They will:

- contribute to development of school vision and principles for science;
- provide base line evidence for monitoring activity;
- provide evidence of impact for the submission.

What will the wider school community do?

The wider school community will be involved in the PSQM process.

Parents will:

- take part in home-school science activities;
- share evidence of children's engagement with science;
- share their own scientific expertise and experience;
- maybe get involved in projects to develop outdoor science learning, science clubs etc

Local businesses, and community organisations will:

- be invited to work with the school to broaden and enrich children's science experiences

"The sessions and training were a fantastic way of keeping on track and sharing ideas with each other.

The whole process was very gradual, building you up every few weeks to what you needed to achieve by the end of the process."

Science Subject Leader, June 2022

