PSTT CLUSTER GUIDANCE

Working with other schools to form and run science clusters

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What is a cluster?

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A science cluster is a group of schools working together as a collaborative community

Teachers in the cluster share ideas and resources, and support and motivate one another, with the central goal of improving science teaching, and learning.

The vision of the Primary Science Teaching Trust is to see excellent teaching of science in every primary classroom in the UK.

One way of achieving this vision is through supportive networks (clusters). Through these groups, ongoing and sustained improvement can be achieved. In any school there may be changes to teaching staff on a range of time-scales and the PSTT recognises that some of these changes may mean that good teachers of science may leave. Therefore, the PSTT encourages schools to join up into clusters so that they can support one another in their development of science teaching and have more resilience to changes in circumstances.

Why form clusters?

Working with a cluster will benefit you, your school and your group

The role of subject leader is very rewarding, but it can seem daunting to be responsible for the school's subject development and performance. Working with others who share the same subject responsibility and curriculum interest can offer the support necessary to make the role successful. Meeting with teachers from other schools also provides an invaluable, outside perspective.

The benefits of working with other schools and forming a school science cluster:

- Creation of a collaborative locality
- Easier provision of cost-effective CPD
- Support (in-house) and wider afield
- Potential to share physical resources
- Creation of communities of practice
- Facilitates regular meeting of science leaders
- Development and sharing of ideas
- Creation of a sustainable network which Head-teachers will continue to (and want to) support

- **A science group divides the workload,** not only making the whole role manageable, but also improving the outcomes of each task and the quality of practice.
- We learn so much by sharing ideas. This is **one of the easiest, most exciting, efficient and effective CPD opportunities.**
- **Engaging with others** outside your own school **fosters an outward view which keeps you fresh.** It can be harder to thrive, or even survive, in the insular environment of one sc hool.
- It is good to realise **you are not alone and there is support.** Equally, it is rewarding to offer support and develop others; there are mutual benefits.

Why? The Science Subject Leader Group - what can it achieve?

- **Professional development -** within the meetings, sharing ideas through reflective practice
- **Empowerment** - the group identifies its priorities and takes ownership of the agenda
- **Accountability** - the group provides a supportive space for challenge and leads to collective responsibility
- **Efficiency** - division of tasks, shared resources and CPD (which can be targeted to specific needs by using outside providers or skills within the group)
- **'Collective Clout'** - initiating links with other organisations can be more successful from a school cluster than from individual schools; 'collective clout' opens doors
- **Projects** - specific short term CPD projects, or longer-term projects such as linking with a university to engage in action research or working with a learned society, can benefit more teachers and pupils

How to form clusters

The PSTT has supported clusters in the UK over the last 20 years

Remember, each cluster will be unique. Ownership and individuality are very important, and context is a key determinant (see Figure 1).

The ultimate aim is to build supportive and sustainable science teacher communities.

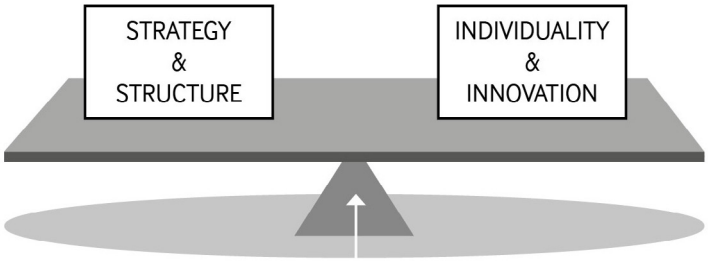

Figure 1: Creating successful clusters.

Our research and experience shows:

- The Cluster Coordinator is key! The most successful clusters have a strong coordinator who is able to drive the group forward, as well as giving ownership to others.
- Groups of 3-12 schools are most successful.
- Funding for teacher time has the greatest impact.
- Basic science resources are a limiting factor.
- A self-run group, rather than one led by an external project manager, maximises ownership and sustainability.
- Allowing more than a year is necessary from forming a cluster to affecting change.

How to: Advice and guidance

Where you could start:

- Use an existing group or a MAT to generate a link with other schools.
- A group of schools that already work together for different purposes other than science could also be a cluster starting point.
- Work on a specific project can be a short term, focussed approach, which could lead to establishing a long-term group.

It is important to have one or two people to take overall responsibility and co-ordinate the group (to be the **'science champions'**), otherwise the organisation and initiatives will falter.

Be adventurous and ambitious. Try something, and, if it doesn't work, decide to move on.

Patience and tenacity may well be needed, but it will be worth it in the end! Be prepared for the odd false start.

Quickly develop purpose and clear, tangible reasons to meet.

Create **shared projects** that the whole group works on but also general themes that each school is able to develop individually and feed back.

Have a balance:

- some relatively easy projects, and others that will take more work
- some short-term, mixed with long-term projects that will be revisited to establish good practice

Be realistic about how much the group and different individuals can do.

Ideally, look for financial input to release SSLs to meet and to provide collective funds for projects.

Social media can facilitate communication with your cluster, in-between meetings.

You could form an **online cluster**, locally or nationally.

Stages of cluster development

A summary and overview of the potential stages of a cluster.
Reaching a stage of strength and sustainability is the ultimate goal for your cluster, but remember, yours is unique and will function at a level appropriate to your capacity and context.

Infancy: Idea and Initiation	Growth: Formation and Performance	Maturity: Strength and Sustainability
Key indicators		
One or two teachers with an idea for a science cluster or network	A collective view develops: there are some shared aims with flexible, school application	The group functions (or could do so) without the original leaders
Initiation of a small core group of interested schools	A strategy and structure exist	Links beyond the immediate group have been established
Common aims begin to emerge	Others are ready to take responsibility or share leadership roles	Proactive not just reactive
Purpose is evident	Both SMT and SSLs are on board and engaged	Development of the group's own projects and an outward-looking approach
Relationships begin to develop	You meet regularly (at best, you are released)	Some sort of funding stream
Actions: to achieve the key indicators		
Find someone to share the vision. SLL or Head	Keep SSLs updated, with reminders and having things to work on to bring next time	Look for and connect with organisations, associations, societies, industry, research
Locate some other schools and SSLs to join in; possibly tap into another network	Plan regular meetings (suiting context and circumstances)	Distributive leadership increases manageability, engagement and longevity
Do something together, very soon in the process; an event, resource or small project	Planning dates in advance and sticking to them keeps momentum and raises the priority	Find good primary science practice and make it central to develop a strong confident group
Be prepared to invest a bit of time to get to know one another and meet	A balance of short and long initiatives is planned	Search out sources of funding (as a group, funding is often easier to obtain)

Impact: Your cluster could achieve ...

- An increased amount of quality, investigative science experiences
- Improved teachers' confidence and skills
- Increased access to resources and shared that benefit teaching and learning
- Staff training (CPD)

- Effective ways to monitor and evaluate science teaching
- The development of 'family-learning' activities
- Support of NQTs in science
- Drawing on local expertise
- More emphasis on the use of ICT

- Teachers' improved knowledge of science
- The strengthened role of the science coordinator
- Effective continuity and progression in science teaching and learning across KS 2&3
- The development of leadership skills

- Projects linked to SEN, gender and minorties
- The dissemination of its own, best practice
- Identification of barriers to effective primary science teaching and plans to overcome them
- Effective Assessment strategy

sharing &learning

excitement &exploration

discovery &delight

investigating &questioning

www.pstt.org.uk

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Further Advice and Support

If you are interested in setting up your own cluster or are already running a science network, **we are here to offer advice and support you.**

Please do contact us if you have any further questions.

Click here to book an online or telephone support meeting.

Click here to download this guidance as a booklet .

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why & how?
PRIMARY SCIENCE TEACHING TRUST

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