

**St Charles RC Primary School Science PSQM Silver Action Plan**

<b>Key Objectives</b>	<b>Actions needed</b>	<b>Leadership/support</b>	<b>Involved</b>	<b>Resources /cost</b>	<b>Success Criteria</b>	<b>Completion Date</b>	<b>Evidence</b>
<p><b>A1</b> There is an effective subject leader for Science.</p>	<p>There is a named member of staff responsible for leading science in the school. They have received CPD and shared it with other members of staff. To be proactive and keep up to date with subject leader courses and SLIC Cluster meetings. To request and run INSET for staff to ensure they remain up to date with changes and best practise in science.</p>	<p>SC/SLT</p>	<p>SC All staff</p>	<p>CPD costs of training courses</p>	<p>Staff members attend CPD training.</p>	<p>On going</p>	<p>INSET dates and notes Training staff have attended Staff meeting notes Teachers planning shows evidence of new and latest curriculum changes.</p>
<p><b>A2</b> There is clear vision for the teaching and learning of science.</p>	<p>Lead an assembly to outline our journey of PSQM to explain to the children the pupil voice questionnaires' and how they will impact on their learning.  Suggestion box where teachers and children place ideas of what makes a good science lesson. Key principles of Science for teaching and learning developed and for staff to implement in teaching science.</p>	<p>HT to lead assembly.  SC and SLT to devise and distribute questionnaire. SC/SLT to develop principles of teaching and learning science.  SC to hold staff meeting to further develop principles.  To update science policy.</p>	<p>All staff</p>	<p>Nil</p>	<p>Questionnaires are distributed, collated and evaluated.  Vision shared with staff, children, parents and governors.  Suggestion box created and responses monitored.  Principles of teaching and learning science are visible in all classrooms and followed . Evident in lesson planning and delivery. All staff</p>	<p>September 2016</p>	<p>Questionnaire From responses  Science Vision and principles evident in school environment and on the website.  Suggestion box  Science policy updated and posted on website.</p>

					<p>have a clear vision for teaching science.</p> <p>Science policy updated and posted on school website.</p>	October 2016	
<p><b>A3</b> There is a current School Development Plan.</p>	<p>SC to work with SLT to agree targets for Science on the SDP based on strengths and weaknesses.</p>	<p>SLT and HT</p>	<p>SLT and HT and SDP shared with all staff.</p>	<p>Nil</p>	<p>Ensure all staff know the targets and focus areas on the SDP.</p> <p>Staff meeting time allocated for science to review progress of the targets.</p> <p>Regularly review, evaluate and update the SDP.</p>	<p>On going</p>	<p>Staff meeting and SLT meeting minutes.</p> <p>SDP working document evidence.</p>
<p><b>A4</b> There is a shared and demonstrated understanding of the importance and value of science to children's learning.</p>	<p>For children's work to be visible throughout school, in books, class displays, table top interactive displays, outdoor learning.</p>	<p>SC to lead by example All staff to use photographic evidence printed, ipads, class displays, talking books to display and celebrate children's work.</p>	<p>SC/SLT HT All staff Governors and Link Governor</p>	<p>Talking books</p>	<p>Profile of science is raised and children's enjoyment of science is shared.</p>	<p>On going</p>	<p>Science display boards Children's books Photographic Books Talking books</p>
<p><b>A5</b> The Science Co-ordinator knows about science teaching and learning across the school.</p>	<p>Book scrutiny focusing on progression of SC1 skills. Feedback to staff Team teaching with other classes and other schools in our Science cluster. Provision of opportunities for child led, outdoor and different types of enquiry learning in line with identified priorities eg SC1,</p>	<p>SLT/Headteacher to provide opportunities for leaning observations and learning walks as well as book scrutinies.</p>	<p>HT, DHT, class teachers, governors, pupils</p>	<p>Staff meeting times Pupil progress meetings Performance Management target</p>	<p>Teaching and learning is good or better, A clearer picture of how effective skills progression is across whole school. A greater awareness of attainment and progression across the school.</p>	<p>Ongoing at key points each term.</p>	<p>Book scrutiny and planning Lesson observations and learning walks. Notes in log</p>

	wow openers Developing CPD for staff to be more confident in taking risks in science and making it more exciting.				Children's outcomes will be better and conversations form staff.		
<b>B1</b> Staff continue to have opportunities for CPD within science that increases their skills, knowledge and understanding.	Staff to attend CPD opportunities supported by Manchester University as part of our Cluster commitment. Performance Management process to inform decisions regarding staff CPD needs in science.  Science Leader to deliver CPD to other teachers.	HT/SC and SLT provide training opportunities  Arrange staff INSET	HT/SC SLT All staff	CPD training costs	Staff have more knowledge and understanding through CPD opportunities to increase their skill in teaching science.	On going	INSET notes Feedback from CPD training Course information flyers
<b>B2</b> There is a range of teaching and learning approaches for Science.	Plan Outdoor Science activities. Identify cross-curricular links with other subjects. (STEM projects) Link science to extra-curricular activities and after school clubs. Establish links with specialist secondary teachers. Share good practice with staff in school and in other schools to further develop science learning. Class trips to develop science knowledge, skills and understanding.	HT, SLT and SC	All teaching staff	Mad Science after school clubs. Cost of a specialist science teacher from St Ambrose Barlow.	Staff feel confident delivering science lessons outdoors.  Timetable of outdoor science learning and photographic evidence of 'science in action'.  Cross-curricular planning and work showing children using and applying their science skills across the curriculum.  After school clubs timetable.  Liaison with the science department at St Ambrose Barlow	Ongoing	Planning and book scrutiny.  Photographic evidence of cross-curricular and extra-curricular activities.  High school science project work.

					High School. Learning opportunities based on trips.		
<p><b>B3</b> There is a range of up-to-date, quality resources specifically for teaching and learning Science. ICT is used both as a tool and as a resource for teaching</p>	<p>To audit science resources and organise them so all staff and pupils are able to access them easily. To conduct regular audits with teachers and check the existing resources for breakages etc. To identify suitable further resources to purchase that will enhance teaching opportunities. Use of 'free' resources, such as rock samples, fabric collections and plants has been developed.</p> <p>ICT to be used by staff for teaching and by pupils to enhance their learning and using different ways of recording.</p> <p>SC to price up software for robots in science ( eg Raspberry Pi). SC to inform staff of any further robot/science initiatives eg Tinker Tailor project, Robot science orchestra that pupils can get involved in.</p>	SC Link Governor Staff	Science Ambassadors Link Governor All staff	<p>Cost of replacing and ordering new resources</p> <p>Buy dataloggers approx. £500</p> <p>Talking point recordable buttons £30 for 6 EYFS and KS1</p> <p>A4 double sided plastic mirrors x10 £15</p> <p>Wireless hand held microscopes £40 to £70 each</p> <p>Robot Kits (Raspberry Pi) £170 each</p>	<p>Science resources well organised and accessible - Staff can find equipment they need to teach engaging lessons easily</p> <p>Lessons are better because of appropriate resources.</p>	<p>July 2016</p> <p>Spring 2017 November 2016</p> <p>November 2017</p> <p>Spring/Summer 2017</p> <p>Autumn 2017</p>	<p>Planning demonstrates use of resources - resource area organised - use of resources evident in classrooms - photos of children using a range of resources</p>
<p><b>C1</b> All pupils are actively engaged in a scientific</p>	<p>Children have ownership of learning and lead activities. To develop critical thinking</p>	SLT HT	All staff SC Pupils	None	Children will become more engaged in science and more	November 2017	Principles of Science on display in all

<p>enquiry, using a variety of enquiry strategies, solving real problems and evaluating their work.</p>	<p>and high order questioning in science lessons. Pupils to use a range of enquiry strategies to develop more independent learning.</p> <p>Provision of differentiated activities of appropriate challenge and extension activities.</p> <p>Ensure all teachers plan for and children are involved in one scientific enquiry every half term.</p> <p>Further develop cross-curricular links with other subjects.</p>				<p>skilled in decision making, problem solving and evaluating work.</p> <p>Children's oral responses and written responses will reflect more high order questions and challenge.</p> <p>Children's responses to green pen challenge questions.</p> <p>Cross-curricular planning and work showing children using and applying their science skills across the curriculum.</p>		<p>classrooms.</p> <p>Children's work via Book scrutiny and teachers planning.</p> <p>Children's work on display, photos, videos, website.</p>
<p><b>C2</b> The purpose of science assessment is well understood and shared by the members of the school community. Assessment approaches are designed to fit those purposes.</p>	<p>SC to lead a whole school science staff meeting to discuss the implementation of the new assessment tracking system.</p> <p>SC to introduce target sheets for all pupils linked to scientific enquiry.</p> <p>Active Comments used in marking and require the</p>	<p>SC HT and SLT Governors</p>	<p>All staff</p>	<p>None</p>	<p>Assessment feeds into planning to ensure the science curriculum is engaging and challenging.</p> <p>Science moderation work in coaching pairs.</p> <p>Children are making at least good progress in science across school.</p>	<p>October 2017</p>	<p>New assessment sheets</p> <p>Monitoring notes and moderation evidence.</p> <p>Book scrutiny</p> <p>Concept maps</p> <p>Evidence in children's</p>

	child to respond. Concept mapping				Active comments in marking provide a clear insight into what the child has understood and the next steps for learning. Evidence of children making links between ideas using concept maps.  Teachers more confident in using new science assessment to assess their pupils and inform pupils, parents, governors and next teacher.		books. Photographic evidence.
<b>C3</b> Children enjoy their science experiences in school.	Pupil voice questionnaires' discussed and how they will impact on learning. Children to complete  Science ambassadors create a termly newsletter, created by children, clearly showing that children enjoy science at St Charles. Children will evaluate their science experiences celebrating what they enjoyed and how they would like to improve. SC to develop priorities for development.	SC SLT Link Governor Science Ambassadors	All staff Pupils Parents Governors	None	Questionnaires' are distributed, collated and evaluated. Pupils make positive and enthusiastic comments about science activities in school. SC has an accurate picture of science across the school.  Science ambassadors elected.  Termly newsletter created and shared.	On going	Pupil voice questionnaires  Newsletters  Science displays  Science evaluation activities.
<b>D1</b> Science supports and links with other curriculum areas and contributes to	Teachers planning to show appropriate links with other subject areas.	SC SLT HT	All staff	None	SC distributed Update 8 science lesson ideas with cross Curricular links	Termly	Planning  Children's books

maximising whole school initiatives while retaining its unique status.	Photographic evidence to be recorded in children's books.				Collect examples of planning showing cross curricular links.		Displays Website
<b>D2</b> There are clear links to other schools and outside agencies/organisations/communities to enrich science teaching and learning	A programme of regular visits/visitors, outreach experiences and workshop activities is being developed for all classes to enhance specific science units/themes. Fieldwork is carried out in the local area and sometimes, beyond it.  Contact by pupils and teachers are made to other schools/community to enrich scientific understanding.	SLT HT SC	SC SLT All staff Pupils Parents	Cost of paying for trips out and visits into school.	The school provides a range of wider opportunities for science.  Children are positive and enthusiastic about science teaching at St Charles.  Children take part in fieldwork activities regularly	On going  Summer 2017	Photos and videos of science week and workshops  Science displays  Science Photographic big book  Annotated planning

Updated 4/10/16  
GSteedman

