



SPECIAL SCHOOL CASE STUDY



Hadrian School caters for the needs of pupils aged between two and eleven years with a range of additional needs including complex, severe learning difficulties and profound and multiple learning difficulties.



It was their first time, but Hadrian School decided that they would go for the Silver Award.

Resources

Since the start of the PSQM process we have developed our outdoor environment to make it a motivating and engaging space for children to learn new skills and acquire knowledge. We now have a chicken coop, minibeast hotel, pond and hide, fire pit, willow structures and vegetable beds for the children to enjoy and learn from.

CURRICULUM

Styles of teaching and learning may differ according to the subject content being taught. The idea that pupils must be active learners is central to all activities and will be seen in teachers'

Challenges

Ensuring that records of achievement and assessment procedures are consistent across year-groups is an on-going responsibility of the subject leader!

"My Hub Leader Janet has been incredibly supportive and a source of invaluable advice and help!"

John Mosley

IMPACT

PSQM has helped to raise the profile of Science around school (e.g. through Science Week, displays and visitors). It has helped me to gain a greater awareness of Science learning in other year groups. I have also used PSQM as my school improvement project for the Middle Leadership course I am currently undertaking. Pupils have benefitted from access to a range of visits and visitors and improved resources which engage and inspire moments of 'awe and wonder'.



John Mosley is the Science co-ordinator at Hadrian School. John decided to join the PSQM to recognise and celebrate the pupil's Science achievements and to identify where improvements are needed.

"The best bit of PSQM has been the links it has helped me to make with colleagues from other schools within the SEN community".

What advice would you give other special schools starting out on PSQM?

Think about all the wonderful learning that goes on in your school which forms the basis of Scientific Enquiry skills. Exploration, cause and effect, communication and 'intensive interaction' sessions might not be on your timetable as 'Science' but frequently these sessions target and evidence Science skills.

How West Oaks School have adapted or interpreted the criteria for their school

Criteria	Notes from West Oaks PSQM submission documents	How/why criteria were adapted for special schools
A1	<p>I have given appropriate Scientific vocabulary, technical support and medium term planning to all staff, which has also led to an improvement in delivery and pupil achievement</p> <p>Training and development for science leader identified Program of training</p>	<p>Pupil resources or staff training materials need to be produced in the form of words, pictures and symbols to enable appropriate access for students individual communication need</p> <p>Although not appropriate for West Oaks, specific Science training may be required as subject leads within special schools may be changed regularly and may be assigned to lead a subject they may have little or no experience in.</p>
A2	<p>Pupils are now taking part in weekly Science sessions where experiments and investigations are the main focus of the lesson rather than the writing up of the methods</p> <p>Science principles highlight that “ Materials are appropriate for whole lesson and appropriate for all”</p>	<p>A focus on practical hands on learning would be more appropriate to enable students to at West Oaks experience science through a more sensory approach. Writing is only one of several methods of recording pupils work at West Oaks. Other methods include: Use of symbols, use of electronic communication aids, photographs, video or iPads.</p> <p>Differentiated activities are essential and three or four sets of different activities, resources and recording methods may be needed within a lesson to meet students individual need.</p>
A3	<p>Include PSQM action plan as point of importance on SDP.</p>	<p>Keeping science at the forefront of the school development plan may be a challenge for some science leads. Although Science is a core subject some special schools may see Literacy, Numeracy and PHSE as higher priority subjects.</p>
A4	<p>Parental engagement activities included: Saturday Stay and Play with Science, plus family week activities. Parents wrote in their home/school books that Science was being discussed at home, which hadn't happened before</p> <p>Displays increased and improved throughout the school. Science videos and photos were on display in the front entrance screen for visitors to watch on arrival</p>	<p>Parental engagement activities and the use of the daily home/school diary is crucial in increasing pupil progress and achievement since pupils may not be able to discuss or share activities carried out during the day.</p> <p>A visual and interactive display with objects, photographs and science work products enable practical engagement and regular reinforcement of a topic for students with more profound and multiple learning difficulties.</p>
A5	<p>Where interventions and professional development is closely targeted the impact will be in evidence through pupil progress indicators</p> <p>These results are then input to CASPA and they evaluate, set targets.</p> <p>Moderation carried out yearly</p> <p>Book scrutiny – books set up in hall 2 x yearly.</p>	<p>A variety of progress indicators used rather than one. Since the introduction of assessment without levels more special schools have moved to using a range of specific SEN assessment methods within school to demonstrate progress. West Oaks use P Scales, PIAVTS and NC APP profiles. Other schools may use B Squared, MAPP and Routes for Learning, progress planners or Classroom Monitor</p> <p>Comparison and Analysis of Special Pupil Data (CASPA) is the most commonly used database to benchmark pupils with different levels of learning difficulty across the country</p> <p>The West Oaks science lead ensured that Science moderation was highlighted within the schools' annual moderation programme. This is important as other subjects may be given higher priority.</p> <p>Whilst it is good to have a bi-annual book scrutiny, West Oaks may also use Record of Achievement, annual review comments or staff lesson records to gather evidence of progress for pupils who may not use books</p>

B2	There are several relevant teaching and learning approaches in science being adopted by teachers across the school in response to school development targets	West Oaks chose to introduce a team teaching approach. Two classes were chosen with a variety of levels and abilities and ages which shared good practice across the widest ability range within the school. West Oaks also decided to allow the pupils to lead the activities which isn't a common approach adopted in special schools. This was done with great success. It was hoped this would lead the way for other subjects to follow suit.
B3	Resources bank extended to cater for wider range of topics and ability levels 4-18 years. All resources are kept in an easily accessible cupboard, all are labelled comprehensively	After consulting staff, West Oaks bought additional resources including data loggers and science apps for their more able pupils but also added more sensory resources for students with Profound and Multiple Learning Difficulties. West Oaks made their science resources area more accessible to students by using large laminated symbols to indicate topics and contents of boxes.
C1	Differentiated activities of appropriate challenge are provided for all pupils offering extension and open-ended work for the most able, and support/guidance for the least.	Pupils at West Oaks use a variety of ways to communicate, from speech, sign language – formal and informal and PECS. All are encouraged to use these as independently as possible, but some have support with gestures, or vocally or physically to ensure they are understood.
C2	Clear target setting in evidence with/for pupils, especially where interventions needed to improve progress. Teachers across the school build different assessment strategies in their science lessons and the outcomes of these into their planning.	Information from the CASPA records can give special school teachers an expected target or level of progress over the year. This is only a suggested target which may be altered after discussion between class teacher and subject lead. When using different assessment methods listed above special schools may assess a pupils understanding through their use of vocalisations, pointing, gesturing, PECs, signing, interviews, recording with photos, video, iPads. For more able students, written work would be more appropriate.
D1	Monitor creative curriculum to record science inclusion across the curriculum	Many special schools use a Creative Curriculum or topic based approach. Many teachers may lack confidence or experience in planning for and delivering a rich and comprehensive science curriculum. As well as supporting and monitoring planning, West Oaks also monitor by lesson observations, pupil voice, learning walks and displays
D2	A programme of regular visits/visitors, outreach experiences and workshop activities is being developed for all classes to enhance specific science units/themes	Some special schools may encounter barriers to outreach experiences due to geographical location, lack of appropriate provision, physical barriers or possibly expense. However, West Oaks has established links with other schools and colleges. They also ran a series of different themed weeks linked to science topics such as Waste week, Materials Week, and Science Week.