Science Subject Specific Targets:

Target area:		Actions:
Classroom management	Improve management and organisation of practical work.	Note on your lesson plan eg. How equipment will be distributed, instructions for collecting and returning resources, how many readings to take, how to record results.
		Produce differentiated instructions for practical work to meet the needs in specific pupils (SEN etc)
		Practice practical work before lesson
		Do a walk around with technicians or head of science
		Talk to technicians re suitable practicals
	Health & Safety	Carry out risk assessments for all practical lessons and ensure both you and the pupils are aware of how to prevent/minimise risks.
		Locate existing department risk assessments/ CLEAPSS cards/gas shut off point
Teaching & Learning / Pedagogy	Use key scientific terms correctly.	Write a definitions glossary on your lesson plan. Produce hard copy glossary for pupils.
	Focus on improving pupils' use of key scientific vocabulary in their spoken and written explanations	Identify and share key science words for each lesson and devise strategies to assess their confidence in using these words correctly.
	Focus on practical science, using creative ideas to link the science to real and relevant contexts.	Increase the number of opportunities for relevant practical work to enhance learning.
	Ensure practical work is achieving the intended purpose in terms of learning.	On lesson plans state the intended **purpose** and outcomes of the practical and share this with your pupils.
		Identify **learning outcomes** that include specific **working scientifically skills** for the practical
		Use practical work to pose questions and challenge pupils to justify their conclusions from practical work

		Try out before the lesson/consult additional support from teachers/ technicians to prepare for/trial practical sessions which you are less familiar with.
	Identify prior learning and possible misconceptions	When planning lessons, show evidence that you have reflected on possible misconceptions / barriers to learning and have planned how you will overcome these.
		Use eg. hinge questions and confidence grids to assess pupils' knowledge and understanding. Plan for how you will address any misconceptions.
		Research and include pupil misconceptions and how to address them into your lesson plans and resources
		Plan key questions, using a taxonomy system eg Blooms, to identify any misconceptions. Identify in your plan who the questions will be aimed at
Subject knowledge	Improve subject knowledge for KS4/KS5 Chemistry / Biology/ Physics, linked to the new exam board specifications	Complete the action plan relating to your **subject knowledge audit** , and/or update the audit providing evidence, such as completed appropriate GCSE examination papers, using examiner reports and exam mark schemes
		Familiarise yourself with the exam board specification for both subject knowledge and practical skills and how they will be assessed.
		Observe teachers teaching relevant topics which have been identified as in need of updating
		Prepare resources to add to the department resource bank
	Develop your subject knowledge for your **non-specialist** science subject	Plan and teach a lesson/s at KS3/KS4 on a topic outside your specialism (either individually or as team teaching)
		Observe lessons being taught outside your specialist area
		Identify and plan for working scientifically in your lessons
		Read at least different 2 sources of information when planning lessons, planning ahead, so that you are confident to answer pupils' questions that might arise, and can add additional information as necessary to engage pupils.

Curriculum & progression in key ideas	Gain a better understanding of how your KS4 biology lessons fit together with each other.	Study schemes of work for eg. GCSE biology, read examination specifications produce a one page document summarising progression across the biology topic you will be teaching next.
	Familiarise yourself with the new KS4 GCSE *(or KS5 A Level)* specifications	Study the 'summary of key changes' documents on the exam board websites.
		Check detailed specification requirements for KS4 eg. Which **specific** metal hydroxide colours students are required to learn
	Ensure progression in learning across key stages	Explore the exam board specs for your non-specialist science subjects at GCSE and identify where relevant learning is that might be essential to underpin learning in your own specialist subject (eg. Atomic structure in chemistry/physics.)
		Read through the A Level curriculum and identify where this builds on prior learning from KS4, or where the KS4 curriculum builds on prior knowledge from the KS3 curriculum (or KS3 from KS2 etc)
Assessment and feedback	Familiarise yourself with the science GCSE assessment criteria	Obtain a summary of the different assessment criteria and relative weightings from the specifications
	Assessment of practical skills	Observe/support/teach a lesson where pupils are carrying out a controlled assessment / required practical, at KS4 and/or KS5.
		Shadow mark coursework, moderate coursework marking
	Use of exam Questions	Use ExamPro to assemble a bank of exam questions, mark schemes and examiners reports for the current science topic.
	Marking and feedback	Set and mark a topic assessment test for science and give feedback to pupils on strengths and areas for development.
		Use the school's marking policy to mark and provide written feedback to pupils on a piece of extended writing in science in line with this.
	Assessment for learning	Observe school AfL expert and incorporate two new AfL strategies into your lesson planning
		Develop a range of AfL strategies to check progress in learning during the lesson in line with school policy.