



Science teacher job description

Post title:	Science teacher for ages 4-16 years (4-11 years at school opening)
School:	The New School, 197 Central Hill, Norwood, SE19
Salary:	£25.000 - £42.000 pro-rata (depending on qualification and years of active teaching experience)
Responsible to:	The Headteacher

Successful applicants will initially be teaching young people in the primary age range 4-11 years and will evolve to teach secondary level too, as the school grows up to year 11.

Young people have the option of taking biology, physics, chemistry at GCSE (as well as other related STEM GCSE's such as maths, design and technology, ICT) and/or developing their own portfolios.

The science teacher will be used to teaching at this level and will have experience of teaching both GCSE and supporting other avenues that demonstrate competence such as portfolios or modelling to support young people moving on to higher education or employment. However, it must be stressed that the GCSE curriculum is covered within a much more holistic and student-led approach to the subject.

Responsibilities

Teaching and curriculum

- Teach science in an engaging and experimental way, integrating other STEM subjects where relevant to mixed age groups of young people from all abilities across the ages 4 – 16 years (4-11 years at school opening)
- Decide how to organise the groups of young people – by mixed-age class (4 year groups at a time), by interest or current achievement level, by skills to work on in drop-in sessions, by project.

- Coordinate with colleagues such as art, design, ICT, class teachers and others, to promote cross-subject collaboration and inquiry, drawing on termly themes and schemes of work taken from reduced versions of the National Curriculum and the International Primary Curriculum (IPC)
- Create a reduced version of the National Curriculum and/or the IPC for science, and ideally technology, engineering, and maths, that covers basic skills but leaves time and space for other things
- Create, plan and deliver discovery and inquiry-based projects that have real-world application and are derived from young people's questions and interests, supporting them to make cross-subject connections and develop a sense of purpose for their learning
- Ensure young people are active participants in building new content understanding and are empowered with a sense of control, building on an innate desire to learn
- Support young people's self-directed STEM projects across the school if asked, using questioning and facilitation of content knowledge rather than giving answers
- Offer young people advice and guidance to develop their personal learning plan and future goals where relevant, supporting them to follow their interests and to choose what to learn and how to learn it
- Consider different learning styles and deliver teaching that is creative, cross-curricula, real-world, and follows the interests of young people.
- Deliver quality mixed ability teaching that demonstrates equality and is rooted in life experience, home life background, and cultural and social identities of young people.
- Research and implement the use of new STEM materials and resources to encourage and foster intellectual curiosity and to support young people to view the world with a critical mindset; as a scientific thinker who can make an impact on the world around them.
- Implement specific strategies to meet the needs of all young people, providing extra time and space, additional support, enrichment, or variation of work when necessary
- Organise and participate in STEM events such as trips or external speakers, provide information to young people so they can research events they would like to visit
- Plan, organise and run outings and trips in collaboration with young people

Class room/ Laboratory

- Organise the laboratory flexibly and arrange learning resources in order to create displays that inspire and 'make learning visible', involve young people, and focus on the processes of critical inquiry not simply the end product
- Provide an equitable, inclusive learning environment with equal access to resources and teaching, that enables every young person to be included in learning and using the laboratory, and to learn in a way that is meaningful to them.
- Create and facilitate an age-appropriate self-directed learning environment that can be used outside of workshop/lesson time, that reflects young people's interests and supports personal inquiry.
- Ensure resources are carefully selected, reviewed and used with a view to social justice and culturally responsive teaching and learning

- Keep work areas tidy and organised to promote safety in the laboratory and ensure that all experiments are trialled and risk assessed beforehand
- Collaborate with young people to create an environment that works for learning, exploration, experimentation and relaxation, that supports their voice and opinions and that enables them to play a big role in discovering knowledge through inquiry
- Use the science space as your own lab, demonstrating and modelling personal investigative work when not teaching

Young people assessment

- Take responsibility for the progress of young people in your subject area
- Develop assessment rubrics with young people to monitor progress, and secure understanding, developing young people's agency in science as a powerful measure of young people's learning, and developing their position as producers and users of scientific ideas
- Provide timely written and verbal feedback to young people about their progress and support a collaborative conversation about this during personal learning meetings with parents
- Understand the learning needs of every young person in the class and their next progression step without the 'aid' of performance charts or benchmarking
- Support young people who choose science at GCSE or those developing their own project or models for further education, qualifications or employment
- Create opportunities for young people to showcase their work through online platforms, presentations, exhibition

Young people's behaviour and discipline

- Model respectful communication and behaviour using principles of restorative justice for resolving conflict
- Support the growing autonomy and agency of young people with a strong awareness of appropriate expectations for each developmental age and stage
- Maintain personal boundaries by adherence to the advice given to staff through trainings, feedback groups, the staff handbook and elsewhere
- Ensure that the rights and responsibilities of democratic citizens are reflected in the rights accorded to – and the responsibilities expected from – young people in the classroom
- Follow the school behaviour and anti-bullying policy, finding ways to communicate with young people and to structure a respectful, calm classroom environment without the use of behaviour modification tools and charts (traffic lights, 123 system, cloud/sun) even those deemed 'positive' e.g. gold stars, stickers, certificates, star of the week etc.

Professional duties

- Support the ethos and principles of the school; be an ambassador for The New School
- Work with others to plan, review and coordinate teaching and learning
- Take part in staff meetings and team meetings
- All staff and young people (if they want to) are involved in appraisal and evaluation of staff and of teaching
- Performance will be reviewed termly through observations with the Headteacher and colleagues
- Undertake additional roles as agreed upon and described within school policies
- Be proactive and take responsibility for matters relating to health and safety
- Take responsibility for safeguarding the welfare of all young people
- Be familiar with and act in accordance with all school policies and procedures

The above list may not be exhaustive and other responsibilities may be attached to the post from time to time. Variation in the duties and responsibilities may also occur without changing the general character of the post.

PERSON SPECIFICATION

	Essential	Desirable
Qualifications	<p>Qualified teacher status and science experience</p> <p>Commitment to further professional development</p>	<p>Other STEM subject experience</p> <p>Further qualifications in a related area e.g. MEd, MA, MSc, MBA,</p>
Experience	<p>The teacher should have experience of teaching at least one of the key stages 2, 3 or 4</p>	<p>Teaching across the whole primary and secondary age range</p> <p>Experience in, or understanding of, educational democratic settings</p>
Knowledge and understanding	<p>An understanding of scientific and mathematical principles;</p> <p>The theory and practice of inclusive teaching, providing effectively for the individual needs of all children (e.g. classroom organisation and learning strategies). See Complex Instruction, Storytelling Schools, YouCubed, NRICH, Dialogic Teaching.</p> <p>Deep knowledge and understanding of science and the development of young people as scientists</p> <p>An awareness of Assessment for Learning practice, as related to monitoring, assessment, recording and reporting of pupils' progress (see also New York Performance Standards Consortium) ;</p>	<p>Organisation of age appropriate self-directed learning spaces</p> <p>Specialist subject knowledge of STEM related subjects</p> <p>Understanding of partnership opportunities and ability to foster links between schools, local community, families, and local business to support the school community as well as learning opportunities for young people.</p> <p>An understanding of the statutory National Curriculum requirements at the appropriate key stage and how to reduce the content to the basics freeing up time and space for other things (see Summerhill Democratics Reduced Curriculum);</p>

	<p>The statutory requirements of legislation concerning Equal Opportunities, Health & Safety, SEN, Child Protection and Safeguarding;</p>	<p>An understanding and ability to discuss culturally responsive teaching practice (See Gloria Ladson-Billings)</p>
<p>Skills</p>	<p>Numeracy and the ability to generate, understand and analyse empirical data including critical analysis</p> <p>The ability to apply a systematic and critical assessment to complex problems with an emphasis on solving them</p> <p>The ability to apply theoretical knowledge of related STEM subjects to practical problems</p> <p>The ability to communicate scientific issues to others and generate a discussion</p> <p>The ability to establish and develop respectful personal relationships within a team and relationships with young people, parents/carers, trustees and the school community (see Visible Child, Non-Violent Communication, Parent/Teacher Effectiveness Training);</p> <p>The ability to create a happy, challenging, effective learning environment.</p> <p>The ability to engage a diverse group of young people in taught, timetabled lessons, and to also know when to 'step back' and allow freedom of</p>	<p>Demonstration of self-reflection of teaching practice, creating and maintaining respectful relationships with young people, ability to offer critical reflection on lesson content, personal work around bias and stereotype</p> <p>Ingenuity, logical reasoning and practical intelligence</p>

	choice during self-directed learning time.	
Personal characteristics	Approachable Committed Can take initiative Critical thinker Values difference Enthusiastic Organised Patient Resourceful Eager to learn Strong belief in young people's agency and in respectful communication	