

THE MEADOWS PART 1:

Building knowledge for a new Science Subject Leader



In conversation
with Imtiaz Damani
- Science Subject
Leader at The
Meadows

How has Science across the City impacted you?

When I took on science it was my first leadership position and I needed knowledge to give me some direction. Science across the City allowed me to step away from what's going on inside my classroom and see what's happening elsewhere. Having that network where I can ask, 'Has anyone come across this or what have you done about that?'

It's having options so if something doesn't work you can try something else.

Emma, our Head Teacher, has given me a licence to go and do whatever I think will make science teaching and learning better. I have ownership over it, so based on SATC training, ideas from others in the network, or my own research, I probably go to Emma about once a week and say, 'is this something we could do?', and Emma will say, 'OK, give it a go'. Emma has now nominated me to become a SATC Science Influencer so I can begin to share my growing knowledge and skills with other teachers in Stoke.

How would you describe science teaching and learning at The Meadows when you became science subject leader?

Science at The Meadows had been very static. We were doing what we'd always done; we'd do an investigation and then spend one or two lessons writing it up, including the aim, the methods, the equipment, the results, the conclusion. It was stale and lots of children, especially those less skilled at writing, would copy off the board. None of the children enjoyed the writing and it was hard for teachers to enjoy the lessons. It was easy for me because we started in a place where we needed to change everything, and

I had the freedom to go with what the SATC training had indicated was best for the children.

'Teachers becoming more expert in their areas of strength may have more benefit than focusing on an area of weakness'

William (2018)

SATC enables the development of professional learning schema in science subject leaders, connecting ideas and practice

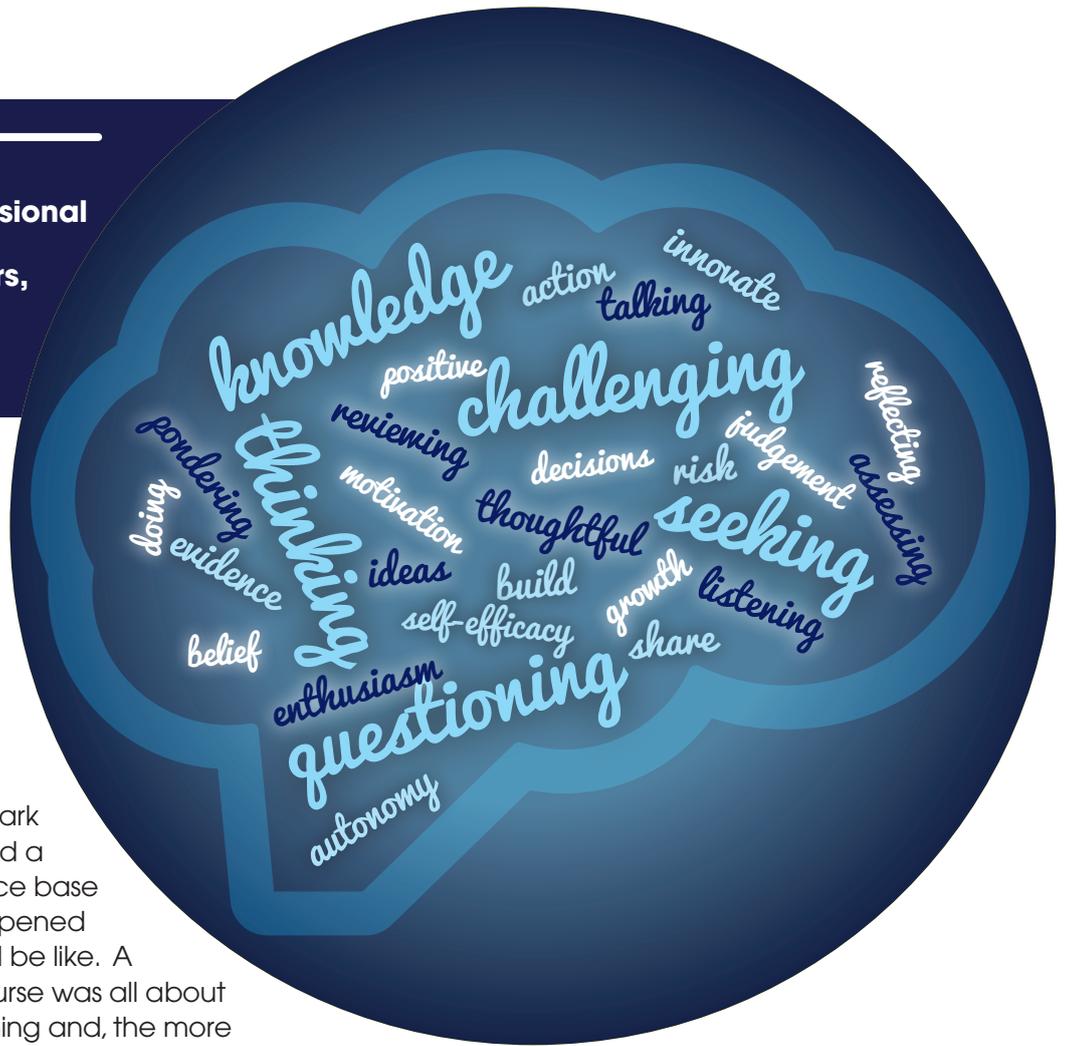
How did SATC support you to make the changes you needed to make?

The training SATC offered all aligned and got us headed in the right direction. The Thinking Doing Talking Science (TDTS) and Primary Science Quality Mark (PSQM) training ensured we had a vision and provided an evidence base to improve science. The TDTS opened my eyes to what science could be like. A target to build towards. The course was all about how taking risks can drive learning and, the more risks we take, the better we get. You don't see the full impact straight away. They signposted me to different resources and websites like Reach Out CPD, which was so useful to myself, and now my colleagues are using it too. The network includes so many people sharing tips that worked for them and then I bring them back to school.

So, how has science teaching and learning changed?

Now the children are enjoying the whole science learning experience. It is more practical, hands-on and child-led. They are more confident and empowered. Every lesson starts with a 5-10 minute discussion then children make decisions for themselves, using what they have learned before,

talking to each other and taking risks. We have a focus on one Working Scientifically objective. For example, the conclusion might be the only thing written in books. We will have photos of the experiment so there is evidence, but the writing will focus on hitting a single skill. Now pupil voice shows that 93% of pupils enjoy the experiments, and they certainly don't miss the writing. They like learning off each other and we have been thrilled by the perceptive answers from children you might not expect to be thinking so deeply. Having more chances to embed those skills is ultimately what is going to make our children great scientists



THE MEADOWS PART: 2

A Head Teacher drawing on Science Across the City to empower and enable subject leadership

Tell us about science at the start and how you became involved in Science across the City.

When Imtiaz took on the role of science subject leader the quality of science teaching and learning lagged behind English and maths because of the high stakes SATs tests. In seeking opportunities to get writing into science, the science was becoming lost, hindering children's progress. It was Imtiaz who identified that and that we needed to make changes. Science is a core subject and it needed to become an important element in our broad and balanced curriculum.

Imtiaz has a master's degree in science and has worked as a scientist. I challenged him to raise the profile, but we had no tools to give him. So, I was excited about the possibilities when I heard about Science across the City. We said to Imtiaz grab it with both hands – really take the subject forward – whatever you want to do. We gave him the power and capacity to do that.

As a school we try to be reactive to the needs of our staff and encourage them to take risks, like the children. We accept they won't always get it right first time. We recognise that Imtiaz is passionate about science and that he can make a big difference. I'm not a scientist and I need a science expert in school to inform me what's best for the children and I trust Imtiaz to do just that.



In conversation with Emma Gater, Head Teacher at The Meadows

He apologises for mithering me and I want him to keep mithering me

– it's great to have someone who is so enthusiastic about science.

Please tell us about the way Imtiaz has risen to the challenge of developing science teaching and learning

Imtiaz audited science across the whole school and identified the strengths and areas for development. He's been incredibly proactive, not just cascading his learning from courses but he's an excellent practitioner and models the changes he asks colleagues to make. Teachers respond so positively to his approach.

Nothing happens by chance.

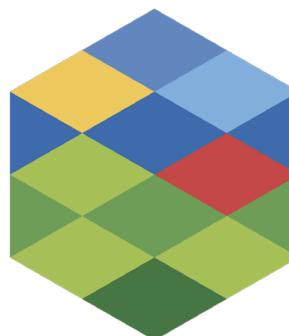
There's been a lot of work that's gone in to it SATC offers great support for Imtiaz to lead this important subject and he is constantly dipping into the community of like-minded people. He has become truly empowered and such a confident subject leader.

'It is not enough to consider what teachers need to learn. We need to make schools places where teachers thrive and grow'

Weston (2021)

SATC supports schools to meet their mission.

The Meadows mission statement:



Sowing the Seeds of Success

So, please tell us about how science teaching and learning have developed

As a school there has been a huge shift to thinking scientifically that has impacted the work in books. A book scan identified a few weaknesses and straight away Imtiaz addressed the issues, doing it in such a proactive way that staff go with him. They don't feel singled out; they feel nurtured to go on that journey together.

I was really lucky to be able to teach one of Imtiaz's year 5 lessons and the children were so confident with the lesson structure.

Previously there would have been a prescriptive approach but now they are able to investigate independently.

Now there are children who've realised they are very good at science, even if they may not be the best writers. We want to have scientists; we want children to explore, to make mistakes in a really safe environment, and genuinely love their subjects. We want to set our children up for the best possible chance of success with science.

Typically, children in this area have low aspirations. It is going to take time to undo some of the negative views of science but if we keep chipping away then over time we can encourage children to consider routes they might never have thought of and open up the world of science to them.

What else would you like to say about Imtiaz

Imtiaz is an expert. He has been empowered to take that love of science and has the drive to move it forward. For our children he is a role model; somebody who has really embraced science. He's always thinking about 'what next?', so I was delighted to nominate him as a Science Influencer. He's incredibly proactive and passionate, but in a quiet way.

We have undoubtedly raised the profile of science but now we need to maintain that momentum. Because Imtiaz is part of that SATC network of like-minded, science education professionals, I know he will keep improving science teaching and learning. There's lots of talk about legacy and in this school Imtiaz, with training and support from SATC, has created a group of staff who are genuinely empowered in science.

