

Charlotte Slade
Physics Innovation
Manager



# Hi there! I am Charlotte Slade – a physics innovation manager



#### Where do I work?

I used to work at Thermo Fisher Scientific in East Grinstead, developing scientific instruments that help researchers make incredible discoveries about materials and surfaces.

#### What did I like doing when I was at school?

I loved taking things apart to see how they worked. Physics and maths were my favourite subjects. I was always curious about understanding how the world around me functioned.

### What do I like doing in my spare time?

I love coaching netball, volunteering with children with disabilities, walking my rescue dog and learning Japanese.

#### What do I do as a physics innovation manager?

I design and develop scientific instruments that can 'see' materials at an atomic level. The tools I make are like a super powerful microscope that can look at the surface of a material in incredible detail. This helps researchers to understand how things work.

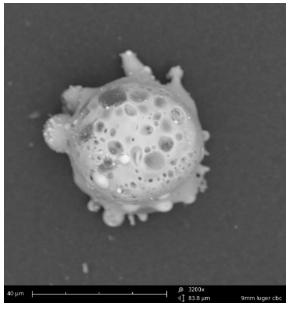


#### How does what I do make the world a better place?

My work helps scientists develop better technologies like more efficient solar panels, longer lasting batteries, and better (smaller) computers. By creating tools that help researchers see things differently, we are solving real-world challenges and pushing the boundaries of human knowledge.

#### What I like about my job

The best part of my job is solving puzzles that nobody has solved before. Every day is different. Sometimes I'm designing new instruments, other times I'm helping other scientists understand their research. It's like being a detective, but for science.



Electron Microscope image of gunshot residue from a 9mm Luger cartridge — this is what they do when they test for specific gunshot residue in crime shows!

### Challenges I have faced

As a woman in STEM, I've sometimes had to work harder to be taken seriously. But I've learned that passion, curiosity, and hard work can overcome any obstacles. My love for science and problem solving has always been my greatest strength.

If you want to be a physics innovation manager, you need:

- curiosity about how things work
- \* to love problem solving
- to enjoy asking why and how
- \* to be patient to learn complex ideas



Making (100% edible!) ice cream with liquid nitrogen

#### **Discussion time**

\* Would you like to be a physics innovation manager like Charlotte Slade?

### Why? Why not?



- \* What skills and interests do you already have that would help you become a physics innovation manager?
- \* What new skills and knowledge would you need to develop?



Charlotte Slade is a STEM ambassador. Click <u>here</u> to access free STEM Ambassador support and resources.

### Free supporting resources for physics

<u>Did you know?</u> articles use cutting-edge science research as a context for learning. Teacher Guides can be used a classroom presentations. They explain what scientists have done and suggest practical activities for children. Children interested in marine science might also be interested in these projects. See:

- Geoengineering could slow melting of Arctic Ice
- How to clean water Using a Molecular Sieve

