

Name: Dr Rachel
Camina

Job: Pure
Mathematician

Rachel works with pure mathematics, helping to develop ideas on the ways in which abstract groups of numbers interact. Through using algebra, Rachel can consider the properties and behaviour of these sets of numbers.

The job involves trying to recognise patterns and recurring properties of these abstract number sets.

Benefit of the work: Benefits will come when other scientists are able to use Rachel's answers about how groups of similar number structures behave, helping them to make faster progress with their own investigations. Her theoretical work contributes to the whole body of scientific knowledge.

Think you might be interested? Here are some of the skills you might need.

Personal skills or aptitudes:

- A real enjoyment of maths
- Powers of abstract thought and reasoning
- A love of problems and puzzles – and finding the solution!

Key skills:

- Numeracy – being good at maths is obviously important!
- Communication
- ICT – programs can be a great help.

Skills Build

First steps – moves you can take now

Try to join or set up a maths club, you'll meet other people with similar interests as well as practicing your skills. Try maths challenges on offer through school and take up any opportunity to attend maths master classes.

Make a start with **www.maths@work.com**. Board and card games are entertaining and good practice for number juggling. Many mathematicians enjoy programming. Start with the usual Visual Basics program (Microsoft Office suite contains a version to get you started) and then progress to C++. Programming is precise use of a language in coded form – you can't make mistakes or the command won't work!

Third floor

If you enjoy maths, you're probably good at it! Go all the way with double maths at A level – pure and applied – and you might also study maths with statistics in the first year to AS level.

Fourth floor

This is where you can take your pick of great places to study and your own course blend. You may want to study abroad for a year during your three-year degree course, getting to know about the maths research done in South or North America, for example.

