Why is Core Maths 'different'?

When I am asked "What is Core Maths?" I give a one word answer - 'different!' This usually starts a conversation in which I ask the questioner what they remember their maths lessons being like at school. When they tell me - algebra, trigonometry, questions, exercises, right or wrong - I say 'well a Core Maths lesson is different to that.

What does a Core Maths lesson look like?

There is no standard formula for a Core Maths lesson. Different teachers will approach lessons differently. Let's have a look at one of my favourite Core Maths lessons. It is taken from a Bowland Maths activity called Cats and Kittens.

Cats can't add but they do multiply!

In just 18 months, this female cat can have 2000 descendants.

Make sure your cat cannot have kittens.

This poster is produced by an organisation who look after stray cats. It is to encourage cat owners to have their cats neutered.

I ask students whether they think a cat can have 2000 descendants in 18 months, whether they consider the number to be a realistic estimate or an exaggerated value. A discussion is had about the need to critically review the information we see in newspapers and especially on social media. In short is this 'fake news'?

The conclusion is reached that more information is needed and discussion is had as to what extra information is required? Questions usually include:

• For how long are cats pregnant?
• At what age can a female cat first get pregnant?
• At what age do female cats stop being fertile?
• How many litters can a cat have per year?
• How many kittens are usually in a litter?

The Bowland activity contains information cards containing this information which I use with younger students, but with a Core Maths class they are expected to use the internet to find answers. We then compare answers to see whether we have a consensus.

A key part of a Core Maths lessons is group work. Students are now expected to develop their group's answer explaining what assumptions have been made and what calculations have been performed. Groups present their response to the rest of the class, with peers making observations and asking questions. What I hope for is that some groups are convinced the statement is correct whilst others are convinced it is fake. This leads to discussion about the assumptions and decisions made.

Is this something you did in a maths lesson when in school, or is it a little different?

Read more about Core Maths in Professor Paul Glaister's article in which he questions whether Core Maths is 'The Most Important Initiative In Post 16 Mathematics Education In A Generation?' You can read what Paul has to say here.