



MATHEMATICS

Careers Information

We are committed to providing students with opportunities to see how maths might be relevant in their future career. As well as emphasising the overall importance of maths, we have a careers display that runs alongside our ten units of work at Key Stage 3. This is displayed at the front of each maths classroom and can provide a discussion point or some other mention from the classroom teacher, as they see fit. We also have posters from the Maths Careers website displayed at the front of the classroom for the same purpose. The area around the IWB is a hub of careers information and inspiration.

Unit	Topics	Careers
1	Negatives, calculations	Accountant - Basic duties will include tracking and examining company income and expenditure, running payroll, conducting audits and identifying financial risks
2	Algebra, substitution	Computer Programmer - Computer programming is all about representing a specific context, like a game, by abstract symbols. A small set of abstract rules is used to make the symbols interact in the right way. Doing this requires algebra.
3	Angles	Cartographer - Maths helps cartographers with map scale, coordinate systems, and map projection. Most cartographers work with engineering, architectural, and surveying firms.
4	Round decimals	Economist - Use mathematical models to better understand such issues as the nature and length of business cycles, the effects of inflation, or the effects of tax legislation on unemployment levels
5	Find percentages	Financial Analyst - These professionals are charged with being knowledgeable about trends in the markets and the performance potential of different kinds of investments in order to help their clients make sound choices
6	Units of measure, PAV	Mechanical Engineer - Mechanical engineers research, design, develop, manufacture, and test tools, engines, machines, and other mechanical devices



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7	Averages, charts	Statistician - consulting with clients and agreeing what data to collect and how it should be gathered - taking into account any ethical and legislative considerations. interpreting the data and making sure that the right decisions are made based on the results
8	Sequences, graphs	Doctor/Nurse - The health care field, including doctors and nurses, often use linear equations to calculate medical doses.
9	Ratio & proportion, best buys	Actuary - analysing statistical data in order to calculate, for example, accident rates for particular groups of people
10	transformations	Architect - Just think of some of the world's most famous buildings (the Great Pyramids at Giza, the Pantheon, the Gherkin, etc) and without the precision and exact mathematical proportions employed, they would be impossible to have built



Example of careers poster – to be placed directly above IWB in classroom whilst studying the topic in KS3

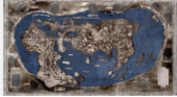
Unit 3: Angles

Fun fact...
All maps have fake towns in them! Cartographers have been using this trick for centuries... it means that painstakingly drawn maps don't end up being copied.

How do I become one?
Mathematical skills and computer programming are needed for this job. You can either then do a degree in a related field such as geography or civil engineering or consider a specific program for it.

What do they do?
A cartographer draws and produces maps. They use scale and coordinate systems. They also have to measure distances and angles between different points.

Famous faces...
This map, created by the German cartographer Henricus Martellus in 1491 was used to guide Christopher Columbus in his discovery of America!



Cartographer