

CEIAG in the Curriculum - Maths

Careers, Education, Information, Advice and Guidance - Teachers make links with careers/real world applications in teaching Math's through:

<u>Year Group</u>	<u>Subject Topic</u>	<u>Link to CEIAG</u>	<u>Half term it is scheduled to be covered in- (general timing/may be different depending on set taught in.</u>	<u>Additional Notes</u>
All	Percentages/Fractions/ Exponential Growth/Decay	Sports Science/Performance analyst Financial Sector workers Business/Retail workers Used in BTEC sport at BA and Sports Science at university. Exponential growth and decay will be studied in Science (with reference to bacteria) both at GCSE/BTEC and A- level and into degree level.	Year 7 – Half Term 2 Year 8 – Half Term 2 Year 9 – Half Term 1 Year 10 – Half Term 1 Year 11 - Half Term 1	A sports analyst will use percentages to measure performance, compare athletes, track improvement. Someone working in the financial sector will use percentages to calculate investment performance, costs for borrowing and lending money. Business and retail workers will calculate percentage profit, calculate discounts on products.
All	Co-ordinates / Maps	Surveyors/Engineers/Builders/ Navigators/Sailors	Year 7 – Half Term 4 Year 8 – Half Term 4 Year 9 – Half Term 1 Year 10- Half Term 1 Year 11 - Half Term 1	Surveyors/Engineers/Builders will use co-ordinates and maps when designing where to put building/roads etc. Navigators/Sailors will use maps and coordinates to plot routes, work out distances etc
All	Constructions / 3D Elevations	Architects/Designers	Year 7 – Half Term 6 Year 8 – Half Term 5 Year 9 – Half Term 1 Year 10- Half Term 1 Year 11- Half Term 1	Architects/Designers will produce accurate plans using construction techniques with protractor and a compass.
All	Transformations / Enlargement	Designers	Year 7- Half Term 3 Year 8- Half Term 4 Year 9 – Half Term 3/6 Year 10 – Half Term 3/6 Year 11 – Half Term 3	Designers will draw plans to scale in order.
All	Formulae / Substitution	Finance/Cost control	Year 7- Half Term 1 Year 8 – Half Term 1 Year 9 – Half Term 1/6 Year 10 – Half Term 1/6 Year 11 – Half Term 1	Financial officers will use formulae to work out pricing structures e.g. for car hire, gas/electricity pricing.
All	Area / Perimeter / Volume	Designers/Engineers	Year 7 – Half Term 3 Year 8 – Half Term 3 Year 9 – Half Term 3/6 Year 10 – Half Term 3/6 Year 11 - Half Term 3	Designers/engineers need to know exact areas/volumes when designing buildings etc

All	Averages/Graphs/ Pie charts / Histograms / Probability	Statisticians. Options at Post 16. Linked to Sciences/Geography at BTEC/ A-Level and into University degrees.	Year 9 – Half Term 4/1/3 Year 10 - Half Term 4/1/3 Year 11 - Half Term 4/1/3	Statisticians will use averages/graphs and probability to analyse results, see patterns in data and plan for the future using probabilities.
All	Standard Form	Scientist Astronomer. Science at GCSE/BTEC and A-Level.	Year 8 – Half Term 2 Year 9 – Half Term 3 Year 10 - Half Term 3 Year 11 - Half Term 3	A scientist will use standard form when working with very small quantities e.g. weights of molecules, atoms etc. Astronomers will use standard form to measure large distances
GCSE	Pythagoras / Trigonometry	Navigators/Sailors/Surveyors/ Architects	Year 7 - Half Term 5 Year 8 – Half Term 3 Year 9 – Half Term 5 Year 10 - Half Term 3 Year 11 - Half Term 3	Sailors might use Pythagoras/trigonometry to calculate distances between different places, bearings to travel on. Surveyors/architects will use calculate angles/length etc.
GCSE	Vectors	Navigators/Sailors	Year 11 - Half Term 4	Navigators/Sailors will use vectors to plot routes, work out distances etc
Post 16 (if applicable)	We are currently only delivering level 2 qualifications to Post 16 learners therefore the CEIAG links are the same as the GCSE cohorts			