PHYSICS

Course Length:	Studied over two years
Examination Board:	AQA
Course Leader:	Mr R Meecham (meecham@queenelizabeths.derbyshire.sch.uk)

Why study Physics? Physicists use the laws they uncover to develop new materials, machinery, and technology to improve our lives and help us explore the universe further, from computers to telescopes and spacecraft. There is a wide range of careers, for example, nuclear physicists who study the tiniest particles of matter to discover what the universe is made of, to astrophysicists who study some of the largest things – stars, planets and celestial bodies.

Many physicists also combine their work with the other sciences (chemistry and biology) to study things like meteorology (the atmosphere) and geophysics (the structure of the earth).

Physics is a very useful subject for the majority of STEM (science, technology, engineering and maths) careers. Physics is especially helpful for jobs that involve building things and developing new technologies, including: engineering (flight, buildings, space), astronomy, robotics, renewable energies, computer science, communications, space exploration, science writing, sports and games technology, research and nanotechnology.

We highly recommend that students have a companion textbook for the duration of the two-year course. There are a variety of AQA endorsed books available from the major publishing houses, and we advise that students investigate which one suits them the best. Alternatively, QEGS Science department can provide a textbook, for a refundable deposit of £20.

Course Content				
AS Content	A-Level Content			
 Paper 1 Measurements and their errors 	Paper 1 Measurements and their errors			
Particles and radiation	Particles and radiation			
Waves	Waves			
Mechanics and materials	Mechanics and materials			
Electricity	Electricity			
Licotrony	Periodic motion			
Paper 2				
Measurements and their errors	Paper 2			
Particles and radiation	Thermal Physics			
Waves	Fields and their consequences			
Mechanics and materials	Nuclear physics			
Electricity				
	Paper 3			
	Practical skills and data analysis			
	Plus 1 from the following list:			
	Astrophysics			
	Medical physics			
	Engineering physics			
	Turning points in physics			
	Electronics			
	There is also an 'Endorsement of Practical Skills' which			
	is awarded separately to the A-Level grade. This is			
	assessed internally through 12 set practicals throughout			
	the course.			

Assessment						
Paper	Title	Assessment	AS	A Level		
1	Physics Paper 1	Written Exam: 1hr 30min	50%	-		
2	Physics Paper 2	Written Exam: 1hr 30min	50%	-		
1	Physics Paper 1	Written Exam: 2hr	-	34%		
2	Physics Paper 2	Written Exam: 2hr	-	34%		
3	Physics Paper 3	Written Exam: 2hr	-	32%		