St George's School
SCIENCE Department
Year 9 Curriculum Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
THE BIG IDEAS & KNOWLEDGE *Overview of topics or key questions*	Energy Resources Forms of energy Energy Demands Energy from wind and water Power from the Sun and the Earth Energy and the Environment Big Energy Issues	Wave Properties The nature of waves The property of waves Reflection & refraction Sound waves	Electromagnetic Waves The EM spectrum Light, IR, microwaves & radio waves Communications UV, X-rays & gamma rays X-rays in medicine		Motion d-t & v-t graphs Velocity & acceleration More about v-t graphs Analysing motion graphs	Space Formation of the solar system Life cycle of stars Orbits Start and End of the Universe Mission to Mars
SKILLS & STRATEGIES *Procedural knowledge, literacy and numeracy skills*	Knowledge of key facts Independent research Presentation skills Analysing data Mathematical skills in Science	Knowledge of key facts Mathematical skills in Science Data interpretation from tables and graphs Practical skills	Knowledge of key facts Independent research Analysing data Mathematical skills in Science		Knowledge of key facts Mathematical skills in Science Data interpretation from tables and graphs	Knowledge of key facts Independent research Presentation skills Mathematical skills in Science

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
FEEDBACK *Noteworthy tasks and assessments*	End of Topic Test Assessed homework	End of Topic Test Assessed homework	End of Topic Test Assessed homework		End of Topic Test Assessed homework	End of Year Test
BREADTH *Opportunities, trips, wider reading, cultural capital*	Renewables used by UK Nuclear energy Causes and fighting climate change	Refraction of waves in real life Using (ultra)sound in distance measurements	Electromagnetic waves in medicine Satellite communication Cancer causes and treatments		Speed measurements for vehicles	Show on iPlayer - “The Planets”, “Wonders of the Solar System”, “Wonders of the Universe”
KEY VOCABULARY *Important words and phrases*	Renewable, Non-renewable, carbon-neutral, national grid, geothermal, hydroelectric, nuclear, tidal, solar	Mechanical, electromagnetic, transverse, longitudinal, wavelength, amplitude, frequency, period, reflection, refraction, ultrasound,	Electromagnetic spectrum, radio waves, microwaves, infra-red, ultraviolet, x-rays, gamma waves, radiotherapy, radiation,		Speed, velocity, acceleration, deceleration, displacement,	Proto-star, main sequence, red giant, supernova, neutron star, black hole, big bang