YEAR 12 PHYSICS WORK PLAN: Semester 2, 2017 – Mr. Miller-Metzner

UNIT	TERM 3TOPICS	ASSESSMENT	DUE DATE
9.	**Spinning the rotor** Electromagnetism $F=Bqv=mv^2/r$, forces on a wire, forces between wires, galvanometer, torque, $E=Blv$, $F=BIL$. magnetic field strength, flux density, changing flux, ac & dc generators, motor effect. Ohmic losses, $B = kI/r$, transformers and induction, electrical generation, solar power, nuclear power, alternative power sources, nuclear fission, nuclear fusion, nuclear radiation, radioactive decay, relativity	Written Task: Semester Test Assessing TOPIC 9 Short and extended answer objective questions; 120 minutes; individual written response; teacher supervised, exam conditions, closed book.	**Week 9/10** Exam TBC
UNIT	**TERM 4 TOPICS**	**ASSESSMENT**	**DUE DATE**
10.	**The Search for Understanding?** Atomic structure; Charge and Coulomb's law; Electromagnetic spectrum; Equilibrium ; Magnetic forces; Mass and weight; Mass–energy equivalence; Nuclear fission; Nuclear fusion; Nuclear radiation; Photoelectric effect; Quantum theory; Radioactive decay; Relativity; Wave refraction; Wave–particle duality	Extended Response Task Particle Physics: Open Ended Topic; 4 weeks, class time and own time; individual report	**Week 1**: Handed Out **Week 3**: Monitoring Wed 18th Oct **Week 4**: Draft Fri 27th Oct **Week 6** Due Date: Mon 6th Nov

This work plan was last updated on Tuesday, 18 July 2017. The contents are subject to change – students will be advised in advance of any changes - regularly check for updates.