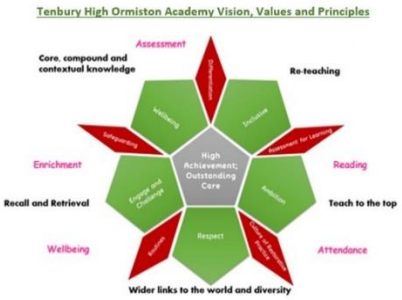
TENBURY HIGH
ORMISTON ACADEMY



Curriculum Overview for Physics
Year 10

Half Term 1: Electricity **Substantive Knowledge:** • define Current, Voltage/ potential difference and resistance • describe how to measure voltage and current • recall the frequency and voltage of mains supply • describe the difference between AC and DC current. • recall symbols for the following components: Cell, Battery, wire, bulb, switch, resistor, variable resistor, LDR, Thermistor, Diode, LED, voltmeter, ammeter and motor. • describe the difference between series and parallel circuits. • describe voltage and current in series and parallel circuits. • recall equation for current and charge. • recall equation for resistance. • describe how resistance changes for components in series and parallel. **Disciplinary knowledge** • draw circuit diagram • draw a series and parallel circuits. • calculate the current and voltage in series and parallel circuits. • calculate current from charge and time. • calculate the resistance of a component or a whole circuit. • calculate the resistance on components in series and parallel.		Decoding of key terminology Skim reading Etymology of key terms
		Current, DC current, AC current, Voltage/ potential difference, Resistance, Component, Series, Parallel, Power, Live wire, Neutral wire, Earth wire, Fuse, Circuit breaker, Circuit diagram, Electric field, Static electricity, Point charge
		Recall tests Review sheet End of unit test
		Review sheet Memorising revisions cards and preparing revision cards for every lesson
Half Term 2: Electricity **Substantive Knowledge:** • describe how the resistance of LDR's, thermistors and Diodes changes. • recall the equation for energy and power in a circuit. • recall the equation for power, generated through resistance. • explain how resistance leads to heating in a wire • describe the wiring in a plug • explain how fuses/circuit breaker and earth wires protect appliances and people. • describe the national grid. • (Triple) recall the two charges and how they interact. • (Triple) recall the direction and nature of electric fields. • (Triple) describe how to charge an object by induction. • (Triple) describe the dangers of static and how earthing prevents this. • (Triple) describe the uses of static electricity (printing, spray painting and cleaning of fumes from chemical plants. **Disciplinary knowledge** • calculate energy and power in a circuit. • calculate the power, generated through resistance. • (Triple) draw an electric field around a point charge. • (Triple) draw an electric field between two charged plates.		Decoding of key terminology Skim reading Etymology of key terms
		Current, DC current, AC current, Voltage/ potential difference, Resistance, Component, Series, Parallel, Power, Live wire, Neutral wire, Earth wire, Fuse, Circuit breaker, Circuit diagram, Electric field, Static electricity, Point charge
		Recall tests Review sheet End of unit test
		Review sheet Memorising revisions cards and preparing revision cards for every lesson

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Tenbury High Ormiston Academy Vision, Values and Principles