	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Theme/Big Idea	**P5 – Electricity in the home** Alternating current; cables and plugs; electrical power and potential difference; energy transfer; appliances and efficiency. **P6 – Molecules and matter** Density; states of matter; changes of state; internal energy; specific heat capacity; gas pressure and temperature.	**P6 – Molecules and matter** Density; states of matter; changes of state; internal energy; specific heat capacity; gas pressure and temperature. **P7 – Radioactivity** Atoms and radiation; discovery of the nucleus; changes in the nucleus; alpha, beta and gamma radiation; activity and half-life; medical uses; fission and fusion.	**P7 – Radioactivity** Atoms and radiation; discovery of the nucleus; changes in the nucleus; alpha, beta and gamma radiation; activity and half-life; medical uses; fission and fusion. **P8 – Forces in action** Forces in balance; vectors and scalars; forces between objects; resultant forces; moments; work and energy; pressure; resolution of forces.	**P8 – Forces in action** Forces in balance; vectors and scalars; forces between objects; resultant forces; moments; work and energy; pressure; resolution of forces. **P9 – Motion** Speed and distance-time graphs; velocity and acceleration; velocity-time graphs; motion graphs.	**P9 – Motion** Speed and distance-time graphs; velocity and acceleration; velocity-time graphs; motion graphs. **P10 – Forces and motion** Force and acceleration; weight and terminal velocity; forces and braking; momentum; conservation of momentum; impact forces; safety; forces and elasticity.	**Exams – Year 10 consolidation** Retrieval and application of Year 10 Separate Science content; equations; required practical knowledge; data interpretation; graph skills and exam technique. **P10 – Forces and motion** Force and acceleration; weight and terminal velocity; forces and braking; momentum; conservation of momentum; impact forces; safety; forces and elasticity.
Content What are they learning? (including keywords)	**P5 – Electricity in the home** Alternating current; cables and plugs; electrical power and potential difference; energy transfer; appliances and efficiency. **Keywords:** alternating current, direct current, mains	**P6 – Molecules and matter** Density; states of matter; changes of state; internal energy; specific heat capacity; gas pressure and temperature. **Keywords:** density, particle, state of matter, internal energy, specific	**P7 – Radioactivity** Atoms and radiation; discovery of the nucleus; changes in the nucleus; alpha, beta and gamma radiation; activity and half-life; medical	**P8 – Forces in action** Forces in balance; vectors and scalars; forces between objects; resultant forces; moments; work and energy; pressure; resolution of forces. **Keywords:** force, vector, scalar, resultant force, moment, work,	**P9 – Motion** Speed and distance-time graphs; velocity and acceleration; velocity-time graphs; motion graphs. **Keywords:** speed, velocity, acceleration, displacement, distance-time graph, velocity-time graph, gradient	**Exams – Year 10 consolidation** Retrieval and application of Year 10 Separate Science content; equations; required practical knowledge; data interpretation; graph skills and exam technique. **Keywords:** retrieval,

	electricity, cable, plug, fuse, power, energy transfer, efficiency **P6 – Molecules and matter** Density; states of matter; changes of state; internal energy; specific heat capacity; gas pressure and temperature. **Keywords:** density, particle, state of matter, internal energy, specific heat capacity, pressure, temperature, gas	heat capacity, pressure, temperature, gas **P7 – Radioactivity** Atoms and radiation; discovery of the nucleus; changes in the nucleus; alpha, beta and gamma radiation; activity and half-life; medical uses; fission and fusion. **Keywords:** radioactivity, isotope, alpha, beta, gamma, activity, half-life, nuclear fission, nuclear fusion	uses; fission and fusion. **Keywords:** radioactivity, isotope, alpha, beta, gamma, activity, half-life, nuclear fission, nuclear fusion **P8 – Forces in action** Forces in balance; vectors and scalars; forces between objects; resultant forces; moments; work and energy; pressure; resolution of forces. **Keywords:** force, vector, scalar, resultant force, moment, work, pressure, equilibrium, resolution	pressure, equilibrium, resolution **P9 – Motion** Speed and distance-time graphs; velocity and acceleration; velocity-time graphs; motion graphs. **Keywords:** speed, velocity, acceleration, displacement, distance-time graph, velocity-time graph, gradient	**P10 – Forces and motion** Force and acceleration; weight and terminal velocity; forces and braking; momentum; conservation of momentum; impact forces; safety; forces and elasticity. **Keywords:** force, acceleration, weight, terminal velocity, momentum, braking, impact force, conservation of momentum, elasticity	application, calculation, data, graph, practical, evaluation, evidence, conclusion, command word **P10 – Forces and motion** Force and acceleration; weight and terminal velocity; forces and braking; momentum; conservation of momentum; impact forces; safety; forces and elasticity. **Keywords:** force, acceleration, weight, terminal velocity, momentum, braking, impact force, conservation of momentum, elasticity
Skills How are they learning it?	**P5 – Electricity in the home** Use electrical equations; calculate power and energy; interpret appliance ratings; explain safe domestic electricity. **Required practical:** No AQA required practical specified.	**P6 – Molecules and matter** Measure mass, volume and temperature; calculate density and energy changes; interpret particle models and gas behaviour. **Required practical:** Determine densities of regular and irregular solids and liquids;	**P7 – Radioactivity** Interpret decay data; calculate half-life; compare radiation; evaluate medical and energy applications; interpret nuclear equations. **Required**	**P8 – Forces in action** Draw force diagrams; calculate resultant forces, moments, work and pressure; use vectors; analyse equilibrium. **Required practical:** No AQA required practical specified. **P9 – Motion** Measure and calculate	**P9 – Motion** Measure and calculate speed and acceleration; construct and interpret motion graphs; calculate gradients and areas under graphs. **Required practical**: No AQA required practical specified.	**Exams – Year 10 consolidation** Retrieve knowledge; apply equations; interpret data and graphs; answer practical-method questions; evaluate conclusions and improvements; practise extended responses. **Required practical:**

	P6 – Molecules and matter Measure mass, volume and temperature; calculate density and energy changes; interpret particle models and gas behaviour. **Required practical:** Determine densities of regular and irregular solids and liquids; investigate specific heat capacity.	investigate specific heat capacity. **P7 – Radioactivity** Interpret decay data; calculate half-life; compare radiation; evaluate medical and energy applications; interpret nuclear equations. **Required practical:** No AQA required practical specified.	**practical:** No AQA required practical specified. **P8 – Forces in action** Draw force diagrams; calculate resultant forces, moments, work and pressure; use vectors; analyse equilibrium. **Required practical:** No AQA required practical specified.	speed and acceleration; construct and interpret motion graphs; calculate gradients and areas under graphs. **Required practical:** No AQA required practical specified.	**P10 – Forces and motion** Measure and calculate acceleration; analyse force-time and motion data; apply momentum equations; investigate elasticity; evaluate safety features. **Required practical:** Investigate the relationship between force and extension for a spring.	Revisit all required practicals taught during Year 10, including methods, variables, measurements, errors, conclusions and improvements. **P10 – Forces and motion** Measure and calculate acceleration; analyse force-time and motion data; apply momentum equations; investigate elasticity; evaluate safety features. **Required practical:** Investigate the relationship between force and extension for a spring.
Key Questions	**P5 – Electricity in the home** • How is electricity supplied safely to homes? How are power and energy related? **P6 – Molecules and matter** • How does the particle model explain matter? How are density and thermal properties measured?	**P6 – Molecules and matter** • How does the particle model explain matter? How are density and thermal properties measured? **P7 – Radioactivity** • What is radioactive decay? How is radiation used safely?	**P7 – Radioactivity** • What is radioactive decay? How is radiation used safely? **P8 – Forces in action** • What determines whether forces are balanced? How do moments, work	**P8 – Forces in action** • What determines whether forces are balanced? How do moments, work and pressure depend on force? **P9 – Motion** • How can motion be represented mathematically and graphically? What does the gradient of a motion graph show?	**P9 – Motion** • How can motion be represented mathematically and graphically? What does the gradient of a motion graph show? **P10 – Forces and motion** • How do forces change motion? What is momentum and how is it conserved? How do safety features reduce impact forces?	**Exams – Year 10 consolidation** • Can I apply Year 10 knowledge to unfamiliar contexts? Can I interpret practical data and evaluate methods? **P10 – Forces and motion** • How do forces change motion? What is momentum and how is it conserved? How do safety

			and pressure depend on force?			features reduce impact forces?
Assessment (specific assessed piece(s); milestone(s))	P5: End of topic assessment P6: End of topic assessment **Marking Milestone**	P6: End of topic assessment P7: End of topic assessment **Marking Milestone**	P7: End of topic assessment P8: End of topic assessment **Marking Milestone**	P8: End of topic assessment P9: End of topic assessment **Marking Milestone**	P9: End of topic assessment P10: End of topic assessment **Marking Milestone**	Exams: End of topic assessment P10: End of topic assessment **Marking Milestone** **End of Year 10 Examination**