

## MYP-IV Physics

S R #	Unit Name	Key concepts	Related concepts	Global context	Statement of Inquiry	MYP Objectives	Approaches to learning	Content	Summative Assessment Task
1	<b>How do forces and matter interact?</b>	Relationships	Interactions	Identities and relationships  <b>Focus Exploration:</b> Independence	Through identifying relationships of similarity and difference, we understand how force and matter interact.	<b>Science Year 5 Objectives</b>  <b>Criterion A: Knowing and understanding</b> <b>Criterion C: Processing and Evaluating</b> <b>Criterion D: Reflecting on the impacts of science</b>	<b>Critical-thinking skills</b> Evaluate evidence and arguments Interpret data; Draw reasonable conclusions and generalizations  <b>Information literacy skills</b> Organize and analyse data using digital tools	Find out how observations of nature have led us to identify fundamental forces that interact with matter in different ways. Explore three kinds of force closely: gravitation, electrical and magnetic forces, and analyse how these forces affect the matter around them. Take action and explore the way metals can be recycled using electromagnetic force.	Take action! Find out about metal recycling: Produce an information leaflet, web page or poster to raise awareness about metal recycling. Research the way that one metal is mined and extracted, and how the science and technology of metal recycling might help reduce the impact of this process.

									<b>Criterion D:</b> Reflecting on the impacts of science
2	<b>How big is the world?</b>	Relationships	Patterns, Evidence	Identities and Relationships <b>Focus</b> <b>Exploration:</b> Attitudes	We understand our own relationship to the Universe when we identify patterns at different scales.	<b>Criterion A: Knowledge and understanding</b> <b>Criterion B: Inquiring and designing</b> <b>Criterion D: Reflecting on the impacts of science</b> - apply scientific language effectively -document the work of others and sources of information used.	<b>Critical-thinking skills</b> Recognize and evaluate propositions; Evaluate evidence and arguments; Consider ideas from multiple perspectives <b>Creative-thinking skills</b> Propose and evaluate a variety of solutions Make guesses, ask 'what if' questions and generate testable hypotheses <b>Transfer skills</b> Make connections between subject groups and disciplines Inquire in different contexts to gain a different perspective Gather and organize relevant information to formulate an argument <b>Information literacy skills</b>	Find out how the Universe is structured, from the very smallest observable sizes to the very largest. Explore the various ideas that humanity has held at different times about the nature of the 'stuff' in the Universe, and how different patterns at the smallest of scales can make the biggest differences. Take action to research how new materials might be able to help those in less economically developed parts of the world.	Design an information leaflet or an internet 'infomercial' to campaign for investment in the use of graphene to help others. Describe and explain the science behind the development of graphene as a material. Discuss and evaluate the implications of graphene for commercial use <b>Criteria D: Reflecting on the impacts of science</b>

							<p>Access information to be informed and inform others</p> <p><b>Communication skills</b></p> <p>Use a variety of media to communicate with a range of audiences</p>		
3	How far, how fast, how much faster?	Relationships	Movement	<p>Orientation in space and time</p> <p><b>Focus</b></p> <p><b>Exploration:</b></p> <p>Displacement and exchange</p>	To know where we are and where we are moving to we need to describe the relationship between space and time.	<p><b>Criterion A: Knowing and understanding</b></p> <p><b>Criterion B: Inquiring and designing</b></p> <p><b>Criterion C: Processing and evaluating</b></p> <p><b>Criterion D: Reflecting on the impacts of science</b></p>	<p><b>Collaboration skills</b></p> <p>Delegate and share responsibility for decision-making; Manage and resolve conflict, and work collaboratively in teams</p> <p><b>Information literacy skills</b></p> <p>Access information to be informed and inform others</p> <p><b>Critical-thinking skills</b></p> <p>Interpret data; Recognize Unstated assumptions and bias Gather and organize relevant information to formulate an argument; Evaluate evidence and arguments Recognize and evaluate propositions</p> <p><b>Transfer skills</b></p>	<p>Recall that distance is measured in metres (m), and speed in metres per second (<math>m\ s^{-1}</math>)</p> <ul style="list-style-type: none"> <li>Define the terms distance and displacement</li> <li>Apply the relationship average speed = distance/time</li> <li>State that displacement accounts for direction of travel</li> <li>Contrast and explain the difference between distance and displacement</li> <li>Recall that any change in velocity – whether caused by change in speed or in direction – is an acceleration</li> <li>Recall that acceleration is measured in metres per second squared (<math>m\ s^{-2}</math>)</li> <li>Define the terms speed, velocity and acceleration</li> <li>Contrast and explain the difference between speed and velocity</li> <li>Solve accelerations from changes in velocity and time</li> <li>Analyse displacement–time graphs in terms of velocity</li> </ul>	<p>Learner will solve the problem question.</p> <p><b>Criteria A: Knowing and understanding</b></p> <p>Use your raw data to calculate the speeds of the vehicles at each of the measurement points. Present this information in your own graph of speed against time for all vehicles. Discuss and then outline the</p>

							<p>Make connections between subjects and disciplines          Inquire in different contexts to gain a different perspective          Make connections between the subject groups and disciplines</p>	<ul style="list-style-type: none"> <li>• Solve problems using equations of motion (the SUVAT equations) for displacement, velocity and acceleration</li> <li>• Calculate stopping distances at varying speeds</li> <li>• Discuss the dangers of excessive vehicle speeds</li> <li>• Outline a range of safety features to reduce the fatality rate in vehicle crashes</li> </ul>	<p>information in your own graph of speed against time for all vehicles.          Outline any problems (sources of error) in your experiment. Evaluate the importance (significance) of each of these problems. Suggest how you could modify the design of your experiment to remove or lessen these problems.  <b>Criteria B: Planning and designing.</b>   <b>Criteria C: Processing and evaluating</b></p>
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4	<b>Amazing structures: Use of force</b>	Systems	Form	Scientific and technical innovation <b>Focus</b> <b>Exploration:</b> Methods	Nature's forms have inspired us to use systems of force and to create innovative structures.	<b>Criterion A:</b> Analysing force systems, calculating resultant forces <b>Criterion B:</b> Investigating deformation and stretch in a bungee elastic <b>Criterion C:</b> Presenting, interpreting and analysing data, evaluating hypotheses about structures <b>Criterion D:</b> Reflecting on the impacts of science	<b>Creative-thinking skills</b> Make guesses, ask 'what if' questions and generate testable hypotheses <b>Critical-thinking skills</b> <b>Transfer skills</b> Make connections between subject groups and disciplines Practise observing carefully in order to recognize problems and conclusions Test generalizations and conclusions Apply existing knowledge to generate new ideas, products or processes Use models and simulations to explore complex systems and issues <b>Information literacy</b>	<ul style="list-style-type: none"> <li>• Describe force systems in terms of force arrows to show size and direction of forces</li> <li>• Apply vector diagrams to test whether forces are balanced or produce a resultant</li> <li>• Apply vector diagrams to estimate size and direction of resultant forces</li> <li>• Use vector diagrams to solve multiple force problems and calculate the resultant</li> <li>• Describe the direction the frictional force acts</li> <li>• Explain with vectors how to arrive at a net force of zero in 1 dimension</li> <li>• Explain that unbalanced forces cause motion or deformation</li> <li>• Define the law of moments</li> <li>• Solve problems on the turning effect of a force</li> <li>• Analyze the center of gravity of different objects</li> <li>• Interpret force systems in terms of strong structural unit shapes: cantilevers and right-angled triangles, arches and equilateral triangles</li> <li>• Describe how strong structural unit shapes deform under load</li> <li>• Outline the variables that affect the choice of design in a structure, particularly in terms of physical properties of materials</li> </ul>	Learners will solve the numerical problems and essay style questions. <b>Criterion A: Knowledge and understanding.</b>
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5	Free to move?	Change	Movement	<p>Fairness and development</p> <p><b>Focus</b></p> <p><b>Exploration:</b></p> <p>Security and freedom</p>	Movement is change, and our world has been changed by freedom of movement.	<p><b>Criterion A: Knowing and understanding</b></p> <p><b>Criterion B: Inquiring and designing</b></p> <p><b>Criterion C: Processing and evaluating</b></p> <p><b>Criterion D: Reflecting on the impacts of science</b></p>	<p><b>Communication skills</b></p> <p>Negotiate ideas and knowledge with peers and teachers</p> <p><b>Critical-thinking skills</b></p> <p>Evaluate evidence and arguments; Consider ideas from multiple perspectives; Develop contrary or opposing arguments Gather and organize relevant information to formulate an argument; Evaluate evidence and arguments Gather and organize relevant information to formulate an argument; Evaluate evidence and arguments Use models and simulations to explore complex systems and issues</p> <p><b>Collaboration skills</b></p>	<ul style="list-style-type: none"> <li>• Recall that forces cause a change in shape or motion, direction or speed</li> <li>• State Newton's first law of motion.</li> <li>• Recall the concept of inertia is a resistance to change in kinetic state</li> <li>• Apply the concept of inertia to discuss motion of objects in the absence of force</li> <li>• Summarize Newton's first law of motion in terms of inertia</li> <li>• State Newton's second law of motion.</li> <li>• Explain how forces change motion and so cause acceleration</li> <li>• Outline the changes in displacement, velocity and acceleration for objects in free-fall</li> <li>• Outline the effects of resistive forces in gases and liquids</li> <li>• Describe Newton's second law of motion in terms of momentum</li> <li>• Describe the concept of momentum</li> <li>• State Newton's third law of motion.</li> <li>• State that forces occur in action–reaction pairs</li> <li>• Outline the law of conservation of momentum</li> <li>• Analyse motion in terms of force pairs acting on different bodies</li> </ul>	<p>Unit Test: Learners will solve problems and questions.</p> <p><b>Criteria A: Knowing and understanding</b></p> <p>Investigating aerodynamics and freefall: select the appropriate equipment to make measurements in your investigation. Use the investigation cycle to design, carry out and conclude your investigation.</p> <p><b>Criteria B: Planning and designing.</b></p> <p><b>Criteria C: Processing</b></p>

							<p>Listen actively to other perspectives and ideas</p> <p><b>Creative-thinking skills</b></p> <p>Make guesses, ask 'what if' questions and generate testable hypotheses</p> <p>Design new machines, media and technologies</p> <p><b>Information literacy skills</b></p> <p>use critical-literacy skills to analyse and interpret media communications</p>		<b>and evaluating</b>
6	<b>How do we make life easier?</b>	Change	Energy, Transformations	<p>Fairness and development</p> <p><b>Focus</b></p> <p><b>Exploration:</b></p> <p>Human capability and development</p>	Human life has been completely changed and developed through the use of machines that are created to transform energy and do useful work.	<p><b>Criterion A: Knowing and understanding</b></p> <p><b>Criterion B: Inquiring and designing</b></p> <p><b>Criterion C: Processing and evaluating</b></p> <p><b>Criterion D: Reflecting on the impacts of science</b></p>	<p><b>Information literacy skills</b></p> <p>Access information to be informed and inform others</p> <p>Collect, record and verify data; Process data and report results</p> <p><b>Communication skills</b></p> <p>Participate in, and contribute to, digital social media networks; Use a variety of to</p>	<p>Mechanical, chemical, electrical, magnetic, nuclear</p> <ul style="list-style-type: none"> <li>• Recall that the joule is the SI unit for energy</li> <li>• Explain the concepts of potential and kinetic energy forms</li> <li>• Explain that energy is the capacity to cause change, and that change is measured as work in various situations</li> <li>• Solve problems involving work done by machines that transform energy</li> <li>• Solve problems involving work done by gravitational fields</li> </ul>	Find out how the machines work and explain the energetic physics behind their operation. Describe and explain how the machine you have chosen has an impact on human lives: what factors

							<p>communicate with a range of audiences</p> <p>Organize and depict information logically</p> <p>Organize and depict information logically</p> <p><b>Critical-thinking skills</b></p> <p>Gather and organize relevant information to formulate an argument</p> <p>Propose and evaluate a variety of solutions</p> <p>Recognize unstated assumptions and bias</p> <p>Develop contrary or opposing arguments</p> <p>Evaluate evidence and arguments</p> <p><b>Creative-thinking skills</b></p> <p>Design improvements to existing machines, media and technologies</p> <p>Use brainstorming and visual diagrams to generate new ideas and inquiries;</p> <p>Make guesses, ask 'what if' questions and generate testable hypotheses</p>	<ul style="list-style-type: none"> <li>• Explain that in each transformation of energy some energy is wasted as heat</li> <li>• Outline the principle heat transfer processes: conduction, convection, radiation</li> <li>• Describe the states of matter in terms of particle motion</li> <li>• Explain state changes in terms of energetics</li> <li>• Solve problems involving specific heat capacities</li> <li>• State the definition of efficiency</li> <li>• Solve problems about the efficiency of machines and energy transformation processes</li> </ul> <p>Present energy transformations in the form of Sankey diagrams</p> <ul style="list-style-type: none"> <li>• Suggest some different ways of minimizing energy loss</li> <li>• Describe systems for dissipating energy usefully, e.g. heat-sinks, crumple zones</li> </ul>	<p>affect this impact? What challenges have to be overcome?</p> <p><b>Criteria D: Reflecting on the impacts of Science</b></p> <p>Learners will solve problem questions.</p> <p><b>Criteria A: Knowing and understanding</b></p>
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							<b>Transfer skills</b> Inquire in different contexts to gain a different perspective		
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## MYP-V Physics

S R #	Unit Name	Key concepts	Related concepts	Global context	Statement of Inquiry	MYP Objectives	Approaches to learning	Content	Summative Assessment Task
1	<b>How can we communicate?</b>	Relationships	Movement, Energy	Personal and cultural expression <b>Focus</b> <b>Exploration:</b> Metacognition and abstract thinking	New global relationships have become possible as humanity has learned to communicate through energy transferred as wave motion.	<b>Science</b> <b>Year 5 Objectives</b>  <b>Criterion A: Knowing and understanding</b> <b>Criterion B: Inquiring and designing</b> <b>Criterion C: Processing and evaluating</b> <b>Criterion D: Reflecting on the impacts of science</b>	<b>Critical-thinking skills</b> Practise observing carefully in order to recognise problems; Gather and organize relevant information to formulate an argument; : Practise observing carefully in order to recognize problems; Draw reasonable conclusions and generalizations <b>Creative-thinking skills</b> Create novel solutions to authentic problems;	<ul style="list-style-type: none"> <li>• Summarize the properties of oscillatory motion around an equilibrium point</li> <li>• Describe longitudinal and transverse wave motion</li> <li>• Describe a wave in terms of the key dimensions of wavelength, frequency and amplitude</li> <li>• Explain the speed of waves in terms of the properties of media</li> <li>• Explain the subjective experience of loudness and of pitch in terms of the dimensions of a sound wave</li> <li>• Outline the phenomena of interference and resonance in terms of wave superpositioning</li> <li>• Outline the principal regions of the electromagnetic spectrum</li> </ul>	Lab Report: Investigate the factors affecting the time for one swing of a pendulum, write a hypothesis. Explain your hypothesis with scientific reasoning about the forces and the motion of the pendulum.

							<p>Make guesses, ask 'what if' questions and generate testable hypotheses</p> <p><b>Communication skills</b> Use appropriate forms of writing for different purposes and audiences; Use and interpret a range of discipline-specific terms and symbols; Share ideas with multiple audiences using a variety of digital environments and media</p> <p><b>Transfer skills</b> Make connections between subject groups and disciplines</p>	<ul style="list-style-type: none"> <li>• Describe the communication of information through modulation of wave amplitude and frequency</li> <li>• Explain the subjective experience of brightness and of colour in terms of the dimensions of a light wave</li> <li>• Describe the phenomenon of reflection in terms of wavefronts and a ray model</li> <li>• Describe the phenomenon of refraction in terms of wavefronts and a ray model</li> <li>• Solve problems involving Snell's law relating refraction to wave speed</li> <li>• Describe the phenomenon of diffraction in terms of wavefronts and a ray model</li> </ul>	<p><b>Criteria B: Planning and designing</b></p> <p><b>Criterion C: Processing and evaluating</b></p>
2	<b>How is our climate changing?</b>	Change	Environment, evidence, models	Globalization and sustainability <b>Focus</b> <b>Exploration:</b>	Scientific evidence shows that human activity is leading to major changes in global environments.	<p><b>Criterion A:</b> Defining, problem solving, categorizing, and making scientifically supported judgements</p> <p><b>Criterion B:</b> Creating new investigations through applying concepts and</p>	<p><b>Critical-thinking skills</b> Analyse complex concepts and projects into their constituent parts and synthesize them to create new understanding;</p>	<ul style="list-style-type: none"> <li>• Describe surfaces in terms of their black-body emissivity and reflectivity</li> <li>• Identify the chief greenhouse gases</li> <li>• Summarize the greenhouse effect in terms of absorption and re-emission of radiation</li> <li>• Outline the effects of the greenhouse effect on the Earth-atmosphere system</li> </ul>	<p>Presentation on Harnessing Renewable Energy. Research how the energy changes that harness your chosen energy source</p>

						<p>knowledge already learned</p> <p><b>Criterion C:</b> Interpreting and analysing data from laboratory models to understand real-life climate issues</p> <p><b>Criterion D:</b> Researching and taking action on issues concerning global climate change</p>	<p>Interpret data; Evaluate evidence and arguments Use models and simulations to explore complex systems and issues; Identify trends and forecast possibilities</p> <p><b>Creative-thinking skills</b> Create novel solutions to authentic problems; Apply existing knowledge to generate new ideas, products or processes; Make guesses, ask 'what if' questions and generate testable hypotheses</p> <p><b>Transfer skills</b> Combine knowledge, understanding and skills to create products or solutions Make connections between subject groups and disciplines</p> <p><b>Information literacy skills</b></p>	<ul style="list-style-type: none"> <li>• Identify the chief sectors of human activity that contribute to greenhouse gas emissions</li> <li>• Classify energy sources as primary or secondary</li> <li>• Evaluate the energy density of different fuel sources</li> <li>• Identify renewable and non-renewable energy sources</li> <li>• Evaluate renewable and non-renewable energy sources</li> <li>• Outline the key features of a non-renewable fuel source power station</li> <li>• Outline the key features of renewable energy sources: wind generators, hydroelectric, tidal, and solar systems</li> <li>• Classify climate phenomena in terms of positive and negative feedback</li> <li>• Outline the effects of changing albedo on climate</li> <li>• Describe the effects of changing solar irradiation on climate</li> <li>• Evaluate the evidence that short-term global warming is a consequence of human activity</li> </ul>	<p>work. Find out about the advantages and disadvantages of each. Outline the operation of the energy changer in the form of an energychange flow chart and Sankey diagram showing estimated energy losses. Prepare an information briefing in the form of a poster, computer presentation or online resource, such as a blog, that summarizes your research and findings.</p> <p><b>Criteria C:</b> <b>Processing</b></p>
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							<p>Collect, record and verify data Make connections between various sources of information</p> <p><b>Media literacy skills:</b> Demonstrate awareness of media interpretations of events and ideas (including digital social media); Compare, contrast and draw connections among (multi)media resources</p> <p><b>Communication skills</b> Use appropriate forms of writing for different purposes and audiences; Use a variety of media to communicate with a range of audiences</p> <p><b>Collaboration skills</b> Listen actively to other perspectives and ideas; Build consensus</p>		<p><b>and evaluating</b> <b>Criterion D:</b> <b>Reflecting on the impact of science</b></p>
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3	Are all our futures electric?	Systems	Development	Scientific and technical innovation <b>Focus</b> <b>Exploration:</b> Principles and discoveries	The development of electrical systems has defined the modern world and made new futures possible.	<b>Criterion A:</b> Knowing and understanding <b>Criterion B:</b> Inquiring and designing <b>Criterion C:</b> Processing and evaluating <b>Criterion D:</b> Reflecting on the impacts of science	<b>Information literacy skills</b> Access information to be informed and inform others; Use critical-literacy skills to analyse and interpret media communications <b>Communication skills</b> Take effective notes in class <b>Critical-thinking skills</b> Use models and simulations to explore complex systems and issues Interpret data; Recognize and evaluate propositions Evaluate evidence and arguments; Draw reasonable conclusions and Generalizations Test generalizations and conclusions Practise observing carefully in order to recognize problems <b>Creative-thinking skills</b>		
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							<p>Generate metaphors and analogues;          Make guesses, ask 'what if' questions and generate testable hypotheses;          Apply existing knowledge to generate new ideas, products or processes</p> <p><b>Collaboration skills</b>          Listen actively to other perspectives and ideas;          Build consensus</p> <p><b>Reflection skills</b>          Identify strengths and weaknesses of personal learning strategies (self-assessment);</p> <p><b>Affective skills</b>          Demonstrate persistence and perseverance</p> <p><b>Transfer skills</b>          Apply skills and knowledge in unfamiliar situations</p>		
4	<b>Power to the people?</b>	Relationships	Interaction, Energy	Fairness and development <b>Focus Exploration:</b>	Manipulating the relationship between interacting electric and magnetic forces makes	<b>Criterion A:</b> Knowing and understanding <b>Criterion B:</b> Inquiring and designing	<b>Critical-thinking skills</b> Practise observing carefully in order to recognize problems;	<ul style="list-style-type: none"> <li>Recall the relationship between electric and magnetic fields.</li> </ul>	Topic Test: Learners will solve problems and

				<p>Civic responsibility and the public sphere</p>	<p>it possible to distribute plentiful energy to everyone.</p>	<p><b>Criterion C:</b> Processing and evaluating</p> <p><b>Criterion D:</b> Reflecting on the impacts of science</p>	<p>Test generalizations and conclusions;  Practise observing carefully in order to recognize problems;  Gather and organize relevant information to formulate an argument;  <b>Creative-thinking skills</b>  Apply existing knowledge to generate new ideas, products or processes;  Design improvements to existing machines, media and technologies;  Practise visible thinking strategies and techniques  <b>Information literacy skills</b>  Access information to be informed and to inform others;  <b>Communication skills</b>  Use appropriate forms of writing for different purposes and audiences;</p>	<ul style="list-style-type: none"> <li>• Describe the observation you see when passing electric current through a wire</li> <li>• Using your hand, model how magnetic field is generated.</li> <li>• Explain how electromagnets can be used in industry</li> <li>• Recall the factors that affect an electromagnets</li> <li>• Describe how a force is produced using electric and magnetic fields.</li> <li>• Explain how it's possible to make a motor using magnetic fields</li> <li>• State Flemings LHR, and describe what each finger models</li> <li>• Describe how it possible to induce a current with a magnet</li> <li>• Explain in terms of magnetic fields and electrons the phenomena of electromagnetic induction</li> <li>• Describe the process of how electricity is generated</li> <li>• Draw a model of a power station with annotations describing the key processes.</li> <li>• Discuss the energy transfers that take place in a power station</li> <li>• Apply your knowledge of electromagnetic induction to explain how a transformer works</li> </ul>	<p>essay style questions.</p> <p><b>Criteria A: Knowing and understanding</b></p>
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5	<b>What's in an atom?</b>	Change	Consequences, energy, environment	Scientific and technical innovation <b>Focus</b> <b>Exploration:</b> Industrialization and engineering	Learning to control nuclear changes allows us to use matter in new ways and release huge quantities of energy, with consequences that can be both positive and negative.	<b>Criterion A:</b> Through problem solving, analysing complex ideas and systems, and making scientifically supported judgements <b>Criterion D:</b> Though reflecting on the societal, economic and environmental impacts of nuclear science and technology	<b>Critical-thinking skills</b>  Practise observing carefully in order to recognize problems; Use models and simulations to explore complex systems and issues; Interpret data; Draw reasonable conclusions and generalizations; Analyse complex systems and projects into their constituent parts and synthesize them to create new understanding; Evaluate evidence and arguments; Consider ideas from multiple perspectives  <b>Information literacy skills</b>  Collect, record and verify data; Access information to be informed and inform others; Present information in a variety of formats and platforms; Make	<ul style="list-style-type: none"> <li>• Describe the basic properties of protons, electrons and neutrons</li> <li>• Model the relative size of the atom</li> <li>• Describe what is meant by an isotope</li> <li>• Discuss the importance of Rutherford and Thompson in developing an understanding of the atom</li> <li>• Draw the basic structure of the atom</li> <li>• Outline the principle of electrons moving between shells</li> <li>• Explain the relationship between neutrons and protons in the nucleus</li> <li>• Describe what is meant by ionizing radiation</li> <li>• Outline the phenomena of ionization</li> <li>• Explain the reason for radioactive decay</li> <li>• Summarise the properties of alpha, beta and gamma</li> <li>• Outline sources of background radiation</li> <li>• Explain how a Geiger-Muller tube works</li> <li>• Evaluate which form of radiation is the most harmful to humans</li> <li>• Calculate half-life of a decay source</li> <li>• Outline the practical uses of alpha, beta and gamma</li> <li>• Explain how we use carbon dating to find out the age of objects</li> </ul>	Useful Radiation Presentation: Choose one of the uses of radioactivity. Identify a specific technological application in your chosen area. Describe the problem that the application solves, and explain how radioactivity is used in the application. Discuss and evaluate the use of radioactivity for this application. Are there other ways of solving the problem? Compare them to the
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							<p>connections between various sources of information</p> <p><b>Media literacy skills</b></p> <p>Seek a range of perspectives from multiple and varied sources</p> <p><b>Affective skills</b></p> <p>Demonstrate persistence and perseverance; Practise 'bouncing back' after adversity, mistakes and failures; Practise dealing with disappointment and unmet expectations</p> <p><b>Communication skills</b></p> <p>Read critically and for comprehension; Write for different purposes; Share ideas with multiple audiences using a variety of digital environments and media</p>	<ul style="list-style-type: none"> <li>• Describe the process of nuclear fission</li> <li>• Model a chain reaction</li> <li>• Recall what is meant by binding energy</li> <li>• Describe how nuclear fission can be controlled</li> </ul>	<p>use of radioactivity.</p> <p><b>Criteria D:</b> Reflecting on the impacts of Science</p>
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							<b>Collaboration skills</b> Manage and resolve conflict, and work collaboratively in teams; Build consensus		
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