

DELEDDA INTERNATIONAL SCHOOL

SUBJECT GROUP OVERVIEW

Unit Title	Key Concepts/ Specified concepts (BETA)	Related Concepts	Global Context and Explorations	Statement of Inquiry	Content	Objectives (criteria)	ATL	ATL BETA
<b>Sciences (MYP1)</b>								
MYP 1 - Sciences 2025/26 - Unit 1: Zoom into Life		Environment, Evidence.	Orientation in space and time	Systems provide environmental evidence and help us understand and recognize different ways of organizing the complexity of life on Earth. The analysis of common features and differences among living organisms allows us to understand that we belong to one big unique world.	Living and non-living things. Characteristics of living organisms.  Investigating variation: organizing data in frequency diagrams, bar charts, mean, median, mode.  Concept of species. Biological classification: the five kingdoms. The animal kingdom: basic classification of vertebrates and invertebrates. The plant kingdom: how to recognize different groups of plants. Microorganisms and their roles.  Environmental characteristics that influence life  Use of the microscope. Plant cells. Animal cells.  Scientific Method and Variables	<b>Criteria A, B, C and D</b>		Research - Use an organised process for conducting research
MYP 1 - Sciences 2025/26 - Unit 2: Keep everything together: Living organisms in their environment	Relationships	Environment, Interaction.	Globalization and sustainability	Relationships between organisms and the environment leads to interaction with their surroundings which allows them to adapt in order to survive in unfamiliar habitats.	Energy and living organisms in their environment. Organism survival: adaptation and behavior. Migration as a feasible solution to survival. Food chains. Biodiversity. Pollution and alternative energy resources.	<b>Criterion A</b>		Thinking - Generate multiple new ideas, solutions, and inquiries
MYP 1 - Sciences 2025/26 - Unit 3: Chemistry: what are different materials made of?	Change	Form, Transformation.	Scientific and technical innovation	Change in form occurs through transformations which can be analyzed in products using technological innovation.	Particles theory and changes of state. Different properties of materials: metals and non-metals. Water as a liquid, solid and gas. The importance of water for plants The importance of water for animals The effects of water on Earth (weathering/erosion) Skills Design a scientific investigation in order to answer a research question. Organize data in tables, process them and show the results in an appropriate format.	<b>Criteria B and C</b>		Thinking - Analyse complex information
MYP 1 - Sciences 2025/26 - Unit 4: The history of Earth: rocks cycle and the evolution of life.	Change	Patterns, Transformation.	Scientific and technical innovation	Changes in the patterns of the Earth's crust has transformed our continents, affecting our lives with dramatic seismic events requiring renewed strategies using technological innovations to reduce and prevent damage.	The history of Earth: rocks cycle and evolution of life. Fossils and geological timescale. From mineral to rock, from rock to soil.	<b>Criterion D</b>		Thinking - Identify connections (patterns, relationships, trends)
<b>Sciences (MYP2)</b>								
MYP 2 - Sciences 2025/26 - Unit 1: Chemistry: from elements to molecules	Change	Form, Transformation.	Scientific and technical innovation	Matter analyzed from its microscopic structure and how it changes due to the effect of natural forces leads us to understand the nature of its many different forms and how it can be transformed leading to new scientific technical innovations.	Review of particles theory and study of its influence upon states of matter and diffusion. Brownian motion. Organisation of elements: the periodic table. Atoms and molecules. Elements and compounds. Mixtures and separating mixtures. Solutions and solubility. Chemical and physical changes.	<b>Criteria A, B, C and D</b>		Research - Use an organised process for conducting research. Thinking - Identify connections (patterns, relationships, trends)
MYP 2 - Sciences 2025/26 - Unit 2: We need a healthy heart and lungs.	Systems	Interaction, Function.	Scientific and technical innovation	The study of human body systems, their functions and their interactions leads to a better awareness of the consequences that smoking could cause directly and indirectly to the human body and society, contributing to the formation of balanced and respectful young adults.	Energy and living organisms in their environment. Organism survival: adaptation and behavior. Migration as a feasible solution to survival. Food chains. Biodiversity. Pollution and alternative energy resources.	<b>Criterion A, C and D</b>		Research - Formulate effective research questions
<b>Sciences (MYP3)</b>								

MYP 3 - Sciences 2025/26 Change - Unit 1: Motion	Movement, Patterns.	Scientific and technical innovation	Mathematical models can be applied to identify the pattern of a moving object and deduce motion features such as speed and acceleration, in order to improve scientific knowledge and technological development.	Reference points Distance, displacement, speed, average speed, velocity and acceleration Graphing: creation of distance-time and velocity graphs Calculation of distance from a speed-time graph	<b>Criterion A, B, C and D</b>	Research - Use an organised process for conducting research
MYP 3 - Sciences 2025/26 Change - Unit 2: Bodies and Forces	Interaction, Movement.	Scientific and technical innovation	Scientific and technical innovation based on the study of bodies and on the changes in state and shape arising from their interactions, allowed human beings to solve practical problems supporting the processes of modernization and industrialization.	Knowledge: Forces as different kinds of interactions among bodies, the differences between mass and weight, mass density, pressure, Archimedes principle. Meaning and uses of levers.	<b>Criterion A and C</b>	
MYP 3 - Sciences 2025/26 Systems - Unit 3: Control and Coordination	Function, Interaction.	Identities and relationships	Every living organism is a system with complex functions which are controlled in order to let it live, interacting with the surrounding environment, in a progressive definition of its identity and relationship with other organisms.	Description and function of neurons. Description and function of the different parts of the nervous system and the 5 senses. Description and function of the endocrine system (main glands).	<b>Criterion A, B and D</b>	Communication. Research - Use an organised process for conducting research
MYP 3 - Science 2025/26 - Change Unit 4: Heredity and Tectonics: keys to understand the evolution of life on Earth.	Consequences, Transformation.	Orientation in space and time	Observation of the ongoing processes that transform the Earth and all life on it is the key to understanding the events that led to the Earth as we know it today.	Genotype and phenotype. Mendel's laws. Punnett's square. Tectonics, volcanoes and earthquakes. The evolution of life on Earth. The evolution of human kind.	<b>Criterion A</b>	Communication
<b>Science (MYP4)</b>						
MYP 4 - Science - Biology and Chemistry 2025/26 - Unit 1: Rules and principles in science	Environment, Models.	Identities and relationships	Science has developed systems of rules and protocols to study the environment, living organisms and their relationship with the abiotic components and has created models to describe principles and laws of nature.	- the main safety rules, labels and equipment to know for working in a biology and chemistry lab - the main rules for recycling at school - the most important IB learner profile attributes of a scientist - the concepts of quantity and concentration - uncertainties of measurements - the concepts of accuracy and precision: systematic and random errors - dilution of solutions	<b>Criterion A: Knowing and understanding.</b>	Communication - Communicating information and ideas effectively using appropriate style (Descriptor created by us)
MYP 4 - Science - Biology 2025/26 - Unit 2: The basis of life	Function, Patterns.	Scientific and technical innovation	Scientific and technical innovation favour the study of living organisms and the relationship between different levels of organization, which, although differing in complexity, share patterns and functions with all life on earth.	- The cell theory, ultrastructure of cells, the functions of life - Communication between cells: the importance of the membrane, diffusion, osmosis and active transport - Microorganisms: bacteria, viruses and microscopic eukaryotes. Their role in the human body and in the environment - The discovery of penicillin and antibiotics - The development of the first vaccine - Mycobacterium leprae and other pathogens as examples of different agents causing infectious diseases - The importance of microscopy in the development of biology and medicine - Classification of living organisms.	<b>Criterion A: Knowing and understanding; Criterion D: Reflecting on the impact of science;</b>	Self-management - Use appropriate strategies for organizing material and complex information. Research - Use a standard method for referencing and citation
MYP 4 - Science - Biology 2025/26 - Unit 3: Molecules and reactions of life	Energy, Transformation.	Scientific and technical innovation	Scientific innovation studies and utilizes the biochemical reactions and transformations of energy supporting the systems of life at different levels of complexity.	Carbohydrates, proteins, fats, minerals and vitamins - enzyme activity - photosynthesis and leaf structure - aerobic and anaerobic cellular respiration.	<b>Criterion A: Knowing and understanding; Criterion B: Inquiring and designing.</b>	Self-management - Set goals that are challenging and realistic. Research - Formulate effective research questions
MYP 4 - Science - Biology 2025/26 - Unit 4: Producers and consumers	Environment, Interaction.	Globalization and sustainability	Sustainable ecosystems, based on the relationships between living organisms and on the interactions of biotic components with the abiotic components, are now threatened by globalization that is causing important changes to the environment.	Ecosystems (food web, biotic and abiotic components, population, community, habitat) - Factors affecting survival and adaptation - Nutrient cycles - Greenhouse effect and global warming - Ocean plastic pollution	<b>Criterion A: Knowing and understanding; Criterion C: Processing and evaluating (strands 1 and 2).</b>	Social - Use group roles to clarify and organise individual responsibilities. Thinking - Analyse complex information; Identify connections (patterns, relationships, trends

MYP 4 - Science - Biology and Chemistry 2025/26 - Unit 1: Rules and principles in science	Systems	Environment, Models.	Identities and relationships	Science has developed systems of rules and protocols to study the environment, living organisms and their relationship with the abiotic components and has created models to describe principles and laws of nature.	<ul style="list-style-type: none"> <li>- the main safety rules, labels and equipment to know for working in a biology and chemistry lab</li> <li>- the main rules for recycling at school</li> <li>- the most important IB learner profile attributes of a scientist</li> <li>- the concepts of quantity and concentration</li> <li>- uncertainties of measurements</li> <li>- the concepts of accuracy and precision: systematic and random errors</li> <li>- dilution of solutions</li> </ul>	<b>Criterion A :Knowing and understanding.</b>	Communication - Communicating information and ideas effectively using appropriate style (Descriptor created by us)
MYP 4 - Science - Chemistry 2025/26 - Unit 2: From atoms to molecules	Change	Interaction, Models.	Scientific and technical innovation	Atoms interact with each other in order to find a more stable configuration through chemical reactions. Chemistry studies these processes and gives us the possibility to make predictions, based on a cause-effect relationship. These models lead to many new technological improvements improving our life from several points of view.	<ul style="list-style-type: none"> <li>- Theories and representations of atomic structure</li> <li>- Symbols related to atoms and molecules</li> <li>- Atomic number and atomic mass</li> <li>- Explore ions and isotopes through atomic number and atomic mass</li> <li>- Electron configuration</li> <li>- Periodic table and periodicity trends in periods and groups (atomic radius, electronegativity, pH scale, reactivity, metals activity series..)</li> </ul>	<b>Criterion B and C</b>	Communication, Research - Use an organised process for conducting research
MYP 4 - Science - Chemistry 2025/26 - Unit 3: Particles and matter	Change	Energy, Form.	Scientific and technical innovation	Observations and studying of changes of matter, its form and energy involved in those changes allowed some scientific and technical innovations throughout human history.	<ul style="list-style-type: none"> <li>- States of matter and changes of states (exothermic and endothermic change)</li> <li>- Kinetic molecular theory: heating and cooling curves</li> <li>- Pure substance and mixtures</li> <li>- Physical separation methods</li> <li>- The chemistry of solutions: solubility and diffusion</li> <li>- Colligative properties</li> </ul>	<b>Criteria A and C</b>	Self-management
MYP 4 - Science - Physics 2025/26 - Unit 1: Rules and Principles in Physics	Systems	Consequences, Evidence.	Scientific and technical innovation	The search for experimental evidence of causes and consequences of physical processes requires scientists to establish theoretical models and develop methods which can be adapted to different systems	<ul style="list-style-type: none"> <li>- The scientific method</li> <li>- The International System: fundamental VS derived quantities and their units</li> <li>- Scientific notation, order of magnitude, metric multipliers and significant figures</li> <li>- Measurements and uncertainties</li> <li>- Propagation of errors</li> <li>- Data analysis and curve fitting</li> </ul>	Summative assessment: <b>Criterion B</b> - summative: Students must plan an experiment which studies how some specific variables affects the motion of a cupcake holder	Research - Formulate effective research questions
MYP 4 - Science - Physics 2025/26 - Unit 2: Motion	Relationships	Function, Movement.	Orientation in space and time	The functional relationship between space and time can predict the evolution of systems in motion.	<ul style="list-style-type: none"> <li>- vector and scalar quantities: displacement, velocity VS distance, speed</li> <li>- uniform motion</li> <li>- acceleration and accelerated motion</li> <li>- displacement-time, velocity-time and acceleration-time graphs</li> <li>- terminal velocity</li> </ul>	<p><b>Crit. A:</b></p> <p>Students must know the difference between scalar and vectors, know how to add vectors, recognize and understand motion graphs, understand the consequences of the action of forces and recall/apply Newton's laws of motion.</p> <p><b>Crit. C:</b> Students perform an experiment planned and will analyse data using linearisation and assess uncertainties to draw effective conclusions.</p>	<p>Social- Help others participate, contribute and succeed</p> <p>Research - Use an organised process for conducting research</p>
MYP 4 - Science - Physics 2025/26 - Unit 3: Energy	Change	Energy, Transformation.	Globalization and sustainability	The laws of conservation imply that energy can change form but can be neither created nor destroyed.	<ul style="list-style-type: none"> <li>- Conservation of energy</li> <li>- Work, energy and power</li> <li>- Energy sources</li> <li>- Sustainability</li> <li>- Nuclear fusion: the theory, the experimental work, the possible deployment</li> </ul>	<b>Criterion D:</b> Analysis of impact of energy sources in terms of environmental, social, economic, cultural, political and ethical factors.	Social - Use group roles to clarify and organise individual responsibilities; Help others participate, contribute and succeed
<b>Sciences (MYP5)</b>							
MYP 5 - Science - Biology 2025/26 - Unit 2: Inheritance, genetic variability and the evolution of a species.	Relationships	Models, Patterns.	Identities and relationships	Scientific evidence has led to models that help to understand the patterns of inheritance, determining the genetic information that influences our health, identity and relationships with other people	DNA structure and function and the genetic code - Chromosomes - Genes and alleles - Mitosis and meiosis - Mutations - Dominant, recessive and codominant inheritance - ABO blood group - Karyotypes and Down syndrome - Natural selection and evolution of a species.	<b>Criterion A:</b> Knowing and understanding; Criterion D: Reflecting on the impact of science.	Communication - Communicating information and ideas effectively using appropriate style (Descriptor created by us). Social - Facilitate group discussion. Research - Use a standard method for referencing and citation
MYP 5 - Science - Biology 2025/26 - Unit 1 : How do organisms sustain themselves and survive in the environment?	Systems	Balance, Energy.	Scientific and technical innovation	Scientific and technical innovation help the understanding of how systems in living organisms interact with each other and with the outer environment, in order to maintain the balance of life.	Knowledge: The four main tissues - Stem cells - Digestive system (function, characteristics and secreted fluids of the main organs: mouth, stomach, small and large intestine, liver, gall bladder, pancreas) - Circulatory system (blood, its functions and components; structure of the heart; the three circulations; arteries, veins and capillaries) - Immune system (first, second and third line defence; phagocytes and lymphocytes; antibodies) - Lymphatic system (lymph, lymph nodes; lymphatic vessels) - Excretory system.	<b>Criterion A:</b> Knowing and understanding; Criterion B: Inquiring and designing (strands 1 and 3); Criterion C: Processing and evaluating (strands 1, 2, and 4).	Self-management - Use appropriate strategies for organizing material and complex information. Research - Formulate effective research questions. Thinking - Analyse complex information; Identify connections (patterns, relationships, trends)

MYP 5 - Science - Chemistry 2025/26 - Unit 1 <b>BETA</b> : Reactions and quantities	Relationship	Change, Connections	Scientific and technical innovation	Chemical reactions involve changes within and between systems, revealing the relationships and connections that govern how matter is transformed and conserved.	<p>1.1 Chemical formulae and equations</p> <ul style="list-style-type: none"> <li>-Chemical names and formulae</li> <li>-Relative masses of atoms and molecules</li> <li>-Chemical equations for reactions</li> </ul> <p>1.2 Chemical calculations</p> <ul style="list-style-type: none"> <li>-The mole and Avogadro's constant</li> <li>-The mole and chemical equations</li> <li>-Calculations involving gases</li> <li>-Moles and solution chemistry</li> </ul>	<p><b>A: Knowing and understanding</b></p> <p>i. explain scientific knowledge</p> <p>ii. apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations</p> <p>iii. analyse and evaluate information to make scientifically supported judgments</p> <p><b>B: Inquiring and designing</b></p> <p>i. explain a problem or question to be tested by a scientific investigation</p> <p>ii. formulate a testable hypothesis and explain it using scientific reasoning</p> <p>iii. explain how to manipulate the variables, and explain how data will be collected</p> <p>iv. design scientific investigations</p> <p><b>C: Processing and evaluating</b></p> <p>iii. evaluate the validity of a hypothesis based on the outcome of the scientific investigation</p> <p>iv. evaluate the validity of the method</p> <p>v. explain improvements or extensions to the method</p>	<p>Chem Unit 1 (crit A): Students study chemical reactions and through stoichiometric calculations and the law of conservation of mass they learn to identify connections between reagents and products quantities. They carry out experiments involving solids, solutions and gases to become confident with calculations of moles for different substances, they are given formative exercises and test and they receive oral feedback in class. Then they are given similar exercises in the summative test.</p> <p>Chem Unit 1 (crit B): During this unit student perform various experiments on stoichiometry and every time they have to complete stoichiometric calculations to find the theoretical amount of product formed in the reaction. They have to identify the connection between the limiting reagent and the product and in fact they perform experiments where they study the effect of changing the limiting reagent quantity to see how this impacts the quantity of products formed. Also they evaluate their experiments with the % yield calculation, to see how experimental data differ from theoretical data.</p> <p>Chem Unit 1 (crit B): During this unit student perform various experiments on stoichiometry and every time they have to complete the experimental worksheet where they are asked to phrase the most appropriate research question and identify the variables. They share their RQ in class so that students' understanding and progress is checked and they receive feedback from the teacher. During a class activity they are divided into 5 groups. Each group will receive 3 flashcards (scenarios) briefly describing an experiment. Students collaboratively develop high-quality research questions and identify variables (independent, dependent, and controlled) for different experimental scenarios. They then exchange their work with another group and provide structured peer feedback. Source: <a href="https://www.mrgscience.com/myp-laboratory-guidance.html">https://www.mrgscience.com/myp-laboratory-guidance.html</a> At the end of the unit students have to think and design an experiment to test stoichiometry laws. Strand i of criterion B is assessed among the others and the ATL is evaluated accordingly.</p>
MYP 5 - Science - Chemistry 2025/26 - Unit 2 <b>BETA</b> : Chemical bonding	Models	Energy, Interaction	Identities and relationships, Scientific and technical innovation	The interactions between atoms involve the transfer and sharing of energy, and models help us understand the consequences of these bonds on the properties and behavior of matter.	<p>Elements and compounds</p> <p>Chemical bonding</p> <p>Electronegativity and prediction of bond type between elements</p> <p>The ionic bond</p> <p>The covalent bond (polar and pure)</p> <p>Lewis structure</p> <p>Molecular geometry (VSEPR)</p> <p>Polarity</p> <p>Intramolecular bonds vs intermolecular forces</p> <p>The metallic bond</p>	<p><b>A: Knowing and understanding</b></p> <p>i. explain scientific knowledge</p> <p>ii. apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations</p> <p>iii. analyse and evaluate information to make scientifically supported judgments</p>	<p>Chem Unit 2 (crit A): After having studied the different chemical bonds, students in group are given a human relationship scenario by the teacher. They read it and prepare a visual/artistic representation of it in relation to the chemical bond that is most suitable/linked for that scenario. They can choose to do a drawing, a diagram or a short performance (scenetta). At the end of the activity they present their group work to the rest of the class. For homework they write a 300 word reflection on this activity where they are asked to apply one chemical bond to one aspect of their personal life and the ATL is evaluated accordingly (ATL: Consider ideas from multiple perspective // Make unexpected or unusual connections between objects and/or idea)</p> <p>Chem Unit 2 (crit A): Students need to become confident with deducing types of chemical bonds by analysing the atoms involved in a compound, based on their electronegativities. They do this in class and as homework, they receive feedback from the teacher and then they have similar exercises in the summative test.</p>
MYP 5 - Science - Chemistry 2025/26 - Unit 3 <b>BETA</b> : Chemical energetics	Change	Energy, Movement	Scientific and technical innovation	Energy changes during chemical reactions result in the movement of particles and heat, driving transformations that illustrate how energy flows through and causes change in systems.	<p>Energetics of reaction and reaction profiles</p> <p>Rate of reaction</p> <p>Activation energy</p> <p>Factors which affect rate of reaction</p> <p>Calculating the rate of reaction</p> <p>Calorimetry</p> <p>Calculating enthalpy change by calorimetry</p> <p>Precision vs accuracy in calorimetry experiments</p> <p>Bond enthalpy</p> <p>Calculating enthalpy change by average bond energies</p>	<p><b>C: Processing and evaluating</b></p> <p>i. present collected and transformed data</p> <p>ii. interpret data and explain results using scientific reasoning</p> <p>iii. evaluate the validity of a hypothesis based on the outcome of the scientific investigation</p> <p>iv. evaluate the validity of the method</p> <p>v. explain improvements or extensions to the method</p>	<p>Chem Unit 3 (Crit C): Students need to handle a considerable amount of experimental data that they collect during a calorimetry experiment. As a formative activity in class they learn how to use spreadsheets using formulae such as mean and midrange using data from a rate of reaction experiment. They also learn how to plot a graph and how to analyse it to identify patterns in results. Then for the summative criterion C they perform an experiment on calorimetry and they have to use a spreadsheet to process data. This is assessed according to strand i of criterion C.</p>

MYP 5 - Science - Physics Systems 2025/26 Unit 1: Electric forces at work	Function.	Scientific and technical innovation	The development of systems linked materials' conductive properties has changed the way human beings function and made new futures possible.	<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>- Static electricity</li> <li>- Definition of current and potential difference in a circuit</li> <li>- Instruments in circuits and useful symbols</li> <li>- Ohm's laws</li> <li>- Parallel and Series Circuits</li> <li>- Switches and relays</li> <li>- Diodes and LEDs</li> <li>- LDRs and Temperature Dependent Resistors usage</li> </ul> <p><b>Concepts</b></p> <p>Circuits are systems of interdependent components that form a system. If we change one component as a resistance, we should look at how the other features change because of that.</p> <p>Diodes, LEDs, LDR and Temperature dependent resistors show this interdependency in their function.</p> <p>Modelling of a circuit requires a good understanding on how energy transfer and temperature have an impact on the circuit.</p> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>- Design a circuit involving one or more resistances (series and parallel)</li> <li>- Design a circuit involving more complex components as variable resistors, diodes, LEDs, LDRs and Temperature dependent resistors</li> <li>- Use multimeters with the right scale</li> <li>- Evaluate the relationship between resistance and properties of a resistor</li> <li>- Apply Ohm's law to solve simple and complex circuits</li> <li>- Read a graph of Potential difference versus current</li> <li>- Draw a graph of potential difference versus current from collected measurements</li> <li>- Draw the best fit line of the graph and deduce the gradient and intercept from it.</li> </ul>	<p>Two summative assessments tasks will be offered:</p> <ul style="list-style-type: none"> <li>- Test on knowledge and application of the whole topic (<b>criterion A</b>)</li> <li>- Lab report of an experiment to show the relationship between the resistivity of a component and one of the feature changing it. (<b>criterion C</b>)</li> </ul> <p>The tasks will offer the students the opportunities to analyze the features of complex components and how these components are used in real-life applications (by also solving the problems of the test). Power consumed is a key feature when developing a circuit is always to be considered.</p>	<p><b>Thinking:</b></p> <p>Students will reflect on the use of models to explain abstract concepts and they will come up with their own.</p> <p><b>Research:</b></p> <p>This ATL is learned and monitored through formative and summative assessments to assess criterion C. Students will use a data sheet to help them processing data.</p>
MYP 5 - Science - Physics Relationships 2025/26 Unit 2: Electromagnetism	Consequences, Environment.	Globalization and sustainability	Evidence of human impact on the environment can be observed by analyzing the relationships between physical phenomena and their interpretation	<p><b>Content:</b></p> <ul style="list-style-type: none"> <li>Magnetism</li> <li>Magnetic fields</li> <li>Effect of magnetic fields on moving charges</li> <li>The motor effect</li> <li>Current and magnetic fields</li> <li>Induction</li> <li>Transformers</li> <li>Generators</li> <li>Power stations - AC/DC</li> </ul> <p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>Calculation with powers of 10</li> <li>application of formulae given a problem</li> <li>inverse formulae</li> <li>evaluation of a result</li> <li>explanation of a physical phenomenon</li> <li>discussion of a solutions from difference perspectives</li> </ul>	<p><b>Criterion A</b> on the principles of electromagnetism, including calculations on <math>F=BIL</math> and charge particles in a magnetic field</p> <p><b>Criterion D</b> on the sustainability of various application of electromagnetism in society, the preparation for strand ii will be done as a class discussion on the possible essay titles.</p>	<p>Research - evaluate sources</p> <p>In order for students to prepare for the Criterion D they need to evaluate sources and identify the reliable ones</p>