

Teacher(s)	MDI + HOL	Subject group and discipline	Geography		
Unit title	Can Technology come to the Rescue?	MYP year	2	Unit duration (hrs)	18

Inquiry: Establishing the purpose of the unit

Key concept	Related concept(s)	Global context
Change	Management Intervention and Sustainability	Globalisation and Sustainability
Statement of inquiry		
<p style="text-align: center;">Changes in technology create opportunities to intervene against unsustainable interactions with the natural environment</p>		
Inquiry questions -		
<p>These will be entirely dependent on the environmental issue students choose. An example of bees has been given to show the progression that should be expected.</p> <p>Factual— What kinds of plants do bees most tend towards? What methods of pollination is involved in agriculture?</p> <p>Conceptual— What role do bees play in creating a resilient ecosystem? What will be the social/economical/environmental impacts if bee populations collapse?</p> <p>Debatable— Should we protect bees if the ecological service they provide can be replaced by drones?</p>		

Objectives	Summative assessment	
<p>Objective B:</p> <ul style="list-style-type: none"> i. formulate a clear and focused research question and justify its relevance ii. formulate and follow an action plan to investigate a research question iii. use research methods to collect and record relevant information iv. evaluate the process and results of the investigation. <p>Objective C:</p> <ul style="list-style-type: none"> i. communicate information and ideas using an appropriate style for the audience and purpose ii. structure information and ideas in a way that is appropriate to the specified format iii. document sources of information using a recognized convention. 	<p>Outline of summative assessment task(s) including assessment criteria:</p> <p>Goal – Create a presentation/display board detailing a chosen environmental issue and the effectiveness of technological innovations around managing this issue</p> <p>Role – Environmental researcher (similar to report writers for the IPCC)</p> <p>Audience – Environmentalist conference attendees</p> <p>Situation – HIC communities are becoming increasingly aware of environmental issues that humans have created, and technological innovation has a key role in managing these</p> <p>Purpose – You will create an academic presentation/science-fair style stand to display your research and proposed solutions to an environmental issue of your choice</p> <p>Standards</p> <p>B – Investigating and research</p> <p>C – Communication</p>	<p>Relationship between summative assessment task(s) and statement of inquiry:</p> <p style="text-align: center;">Changes in technology create opportunities to intervene against unsustainable interactions with the natural environment</p> <p>Science fair style display</p> <p>Each student should have a chosen environmental issue – perhaps chosen from a short list of ideas</p> <p>Justification about why the environmental issue is worth investigating and addressing</p> <p>Measures of the environmental issue – possible primary data collection... probably secondary data</p> <p>Higher ability should be able to demonstrate an understanding of how the data was collected and the variables that may have influenced</p> <p>Technology’s role in managing the issue should then be explored through at least one example/product/technique</p> <p>Higher ability will be able to evaluate the strengths and weaknesses of the technological solution</p>

Approaches to learning (ATL)

In order for students to *produce an academic research board* they will need to *develop their research skills* .

Explicitly taught and practised skill strategy: This is taught through a series of lessons that look explicitly at effective researching strategies, academic honesty, strengths and weaknesses of information presentation: maps and graphs. As such, students are given model examples and are then given time to develop their own approaches. Feedback will be given to students on how they can improve the information's rigor as well as how it is being communicated visually.

Research skills: Formulate provocative and relevant research questions for an investigation.

Information Literacy Skills

- Collect, record and verify data
- Access information to be informed and inform others
- Make connections between various sources of information
- Understand the benefits and limitations of personal sensory learning preferences when accessing, processing and recalling information
- Present information in a variety of formats and platforms
- Collect and analyse data to identify solutions and make informed decisions
- Process data and report results
- Evaluate and select information sources and digital tools based on their appropriateness to specific tasks
- Understand and use technology systems
- Use critical-literacy skills to analyse and interpret media communications
- Understand and implement intellectual property rights
- Create references and citations, use footnotes/endnotes and construct a bibliography according to recognized conventions

Media Literacy Skills

- Locate, organize, analyse, evaluate, synthesize and ethically use information from a variety of sources and media
- Demonstrate awareness of media interpretations of events and ideas (including digital social media)
- Make informed choices about personal viewing experiences

- Understand the impact of media representations and modes of presentation
- Seek a range of perspectives from multiple and varied sources
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats
- Compare, contrast and draw connections among (multi)media resources