

Interdisciplinary inquiry A

Teacher resource pack

Based on pre-release material for the [November 2016](#) Interdisciplinary on-screen examination.

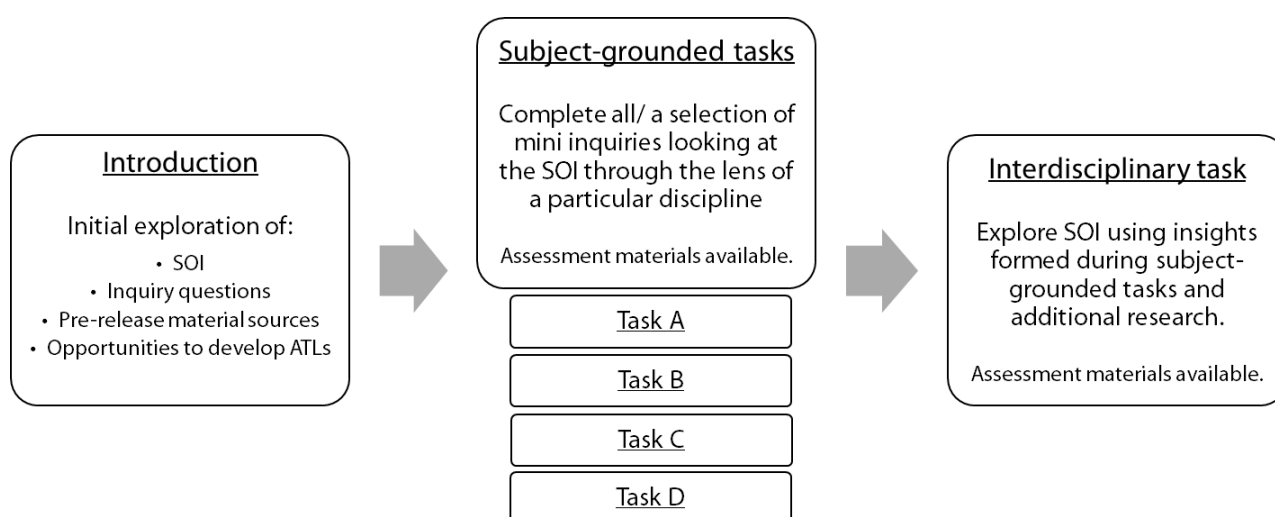
Other supporting documents:

- Guidance document
- Interdisciplinary inquiry A – Student resource pack (available for MYP years 1, 3 and 5)

Introduction

Please refer to the **guidance document** for full details of how to implement the Interdisciplinary inquiry. This support pack contains resources for **Inquiry A**, which is based on the interdisciplinary pre-release material from **November 2016**.

The structure of the inquiry can be seen below.



This **teacher resource pack** contains the materials you will need to implement this inquiry with your students. Additional resources may be needed, based on how you choose to adapt the inquiry for your remote-learning context and individual student needs. Please note that experience teaching subjects represented in the subject-grounded tasks is not essential.

This pack consists of the following:

- Interdisciplinary inquiry overview – it is recommended that students have the opportunity to explore the inquiry questions before beginning to view them through the lens of a single discipline, as they will in the second phase
- Subject-grounded task A – Integrated sciences
- Subject-grounded task B – Individuals and societies
- Subject-grounded task C – Design
- Subject-grounded task D – Mathematics
- Final interdisciplinary task
- Assessment criteria and task-specific clarifications – available for all tasks and MYP years 1, 3 and 5.

Interdisciplinary inquiry A – Overview

Session	November 2016	
Pre-release material	http://idprm.ibo.org/n16.html#/English	PLEASE ENSURE YOUR STUDENTS HAVE THE CORRECT LINK
Statement of inquiry	Individuals, communities and governments, with their different perspectives, all have a role to play in promoting environmental sustainability.	
Global context	Globalization and sustainability	
Key/related concepts that may be explored	<p>Perspective; Change; Systems; Communities</p> <p>Governance; Environment; Choice; Cause and consequence; Adaptations</p>	
Inquiry questions	<p>Factual What is sustainability? What are the benefits of sustainability? What measures can communities and/or individuals take to help protect the environment?</p> <p>Conceptual In what ways do our individual choices contribute to global issues? How do humans interrupt natural environmental processes? How can designers balance the needs of the environment with the needs of stakeholders? How can data inform individuals? How can evidence be used to change perspectives?</p> <p>Debatable Do governments and communities/individuals have equal responsibility to protect the environment? Are all perspectives equally valid? Are systems essential for a sustainable future?</p> <p><i>Please note that some questions may be factual or conceptual, based on the discipline through which it is being explored or the stage of a student's education.</i></p>	
Subject-groundings	Integrated sciences; Individuals and societies; Design; Mathematics	

Tasks

Task	A	Subject grounding	Integrated sciences	Pre-release material sources	1
Relevant inquiry questions		<p>How do humans interrupt natural environmental processes?</p> <p>Do governments, communities and individuals have equal responsibility to protect the environment?</p> <p>What measures can communities and/or individuals take to help protect the environment?</p>			
Task description		<p><i>Please note that this version of the task is provided in the MYP 5 student pack. Alternative task descriptions and support can be found in the student support packs for MYP 1 and 3.</i></p> <p>You are a scientist tasked with providing a report for a politician about to go through an election campaign. Your report must brief the politician about human impacts on the environment, particularly those related to carbon emissions. The politician and their team need enough information to help them decide what their environmental policy should include; the report should also give them enough information to be able to answer scientific questions during the campaign.</p> <p>Before beginning to collect information for your report, you should decide which area you would like to focus on. This could be the area in which you live, it could be an area you have visited, it could be an area you have studied or it could be an area that interests you.</p> <p>In a brief introduction, you need to specify the area you have chosen and present information about:</p> <ul style="list-style-type: none"> • How carbon is transported around the environment, and which processes are caused/impacted by human activity • How, in your chosen area, human activities cause harm to the environment (particularly carbon emissions) and what the consequences are <p>The report should:</p> <ul style="list-style-type: none"> • Give an opinion about which causes and consequences are the most significant • Recommend changes/ alternative methods the politician should support, and why they would be beneficial <p><i>* Use at least one source from the materials provided and at least one other source.</i></p>			
Relevant objective strands		<p>Ai. explain scientific knowledge</p> <p>Aiii. analyse and evaluate information to make scientifically supported judgments.</p> <p>Di. explain the ways in which science is applied and used to address a specific problem or issue</p>			

Learning experience suggestions		
Asynchronous	Synchronous	Offline learning
<p>Students can make a KWL based on reading and share with teacher</p> <p>Online quizzes</p> <p>Online simulations to create data or inform the report.</p>	<p>Discussion and clarifying of questions through video conferencing, shared online white board</p> <p>Shared games or simulations that can be used for discussions</p>	<p>Discussions with household members on their views on environmental policy, sustainability, and their experience of voting in elections where the environment has been an issue</p>

Task	B	Subject grounding	Individuals and societies	Pre-release material sources	5, 6, 7
Relevant inquiry questions		<p>Do governments, communities and individuals have equal responsibility to protect the environment?</p> <p>What measures can communities and/or individuals take to help protect the environment?</p> <p>Are all perspectives equally valid?</p>			
Task description		<p><i>Please note that this version of the task is provided in the MYP 5 student pack. Alternative task descriptions and support can be found in the student support packs for MYP 1 and 3.</i></p> <p>You are a research assistant working for the mayor of a coastal city. This city has a fishing port, and a beach that is responsible for its high level of tourism. Your task is to prepare the mayor for a ‘town hall’ meeting where he/she will answer questions and listen to views from the community on possible changes to the law that the government is proposing. The new law will require that fishermen use only sustainable fishing methods.</p> <p>The mayor has asked for a briefing that includes information on the following:</p> <ol style="list-style-type: none"> 1. Perspectives. What different stakeholders think about more sustainable fishing methods, and why. <ul style="list-style-type: none"> • Fishers • Marine biologist • Supermarket chain CEO • Politician • Corporate fishing organization CEO • Consumer 2. Argument. Present the advantages and disadvantages of different fishing methods; their impact in moving towards a more sustainable environmental policy; and which factors are the most significant. 3. Source evaluation. Which sources are you basing your briefing on, and how confident you are in their relevance and reliability? They would like to know how you have evaluated these sources. <p><i>* You should use sources 5-7 provided in the pre-release material, but you should research further and cite the sources you have used.</i></p>			
Relevant objective strands		<p>Dii. synthesizes information to make valid, well-supported arguments</p> <p>Diii. analyse and evaluate a range of sources/data in terms of origin and purpose, examining value and limitations</p> <p>Div. interpret different perspectives and their implications</p>			

Learning experience suggestions		
Asynchronous	Synchronous	Offline learning
Search for industry-specific websites and databases related to each stakeholder and use them to better understand the stakeholders.	<p>Roleplay using videoconferencing software or text chats</p> <p>Seminars looking at source evaluation</p>	Interview household members for views on sustainable fishing and the reasons behind them.

Task	C	Subject grounding	Design	Pre-release material sources	4, 6, 8, 9
Relevant inquiry questions		<p>What measures can communities and/or individuals take to help protect the environment?</p> <p>How can designers balance the needs of the environment with the needs of stakeholders?</p>			
Task description		<p><i>Please note that this version of the task is provided in the MYP 5 student pack. Alternative task descriptions and support can be found in the student support packs for MYP 1 and 3.</i></p> <p>Inspired by United Nations Sustainable Development Goal 11: Sustainable Cities and Communities, a local community is looking for ways to become more sustainable. The local authorities are therefore seeking proposals for projects that will make the community more sustainable.</p> <p>You will select a community; this may be the community in which you live, or it could be a community with which you are familiar or in which you are interested. You must include relevant information about the community in your design brief.</p> <p>You have been hired by a client to develop a plan for an aquaponics system for the community, (pre-release materials 8 and 9.) The client wants the aquaponic system to be attractive as well as functional.</p> <p>You must choose one of the following scenarios which specify both the client and what they want to achieve (their problem):</p> <ul style="list-style-type: none"> • A group of students that wants to supply fruit and/or vegetables to the school canteen • A marine biologist interested in educating as well as feeding the public • The owner of a chain of local supermarkets who wants to supply the stores with more locally-grown produce • A local politician interested in protecting the environment • A consumer group interested in sustainable fish for local restaurants <p>You must develop a <i>design brief</i> for one of the clients in the list above. You must concisely summarize the useful and relevant information you have found in the pre-release materials 4,6,8 and through your research in your <i>design brief</i>.</p> <p>You will develop a <i>design specification</i> that includes a range of feasible design ideas, a final chosen design (with justification of why this is the best option), detailed planning drawings/diagrams and an outline of the requirements for the creation of the chosen solution.</p>			
Relevant objective strands		<p>Ai. explain and justify the need for a solution to a problem for a specified client/target audience</p> <p>Aiii. analyse a range of existing products that inspire a solution to the problem</p> <p>Aiv. develop a detailed <i>design brief</i>, which summarizes the analysis of relevant research.</p> <p>Bi. develop a design specification which clearly states the success criteria for the design of a solution</p> <p>Bii. develop a range of feasible design ideas which can be correctly interpreted by others</p> <p>Biii. present the final chosen design and justify its selection</p>			

	Biv. develop accurate and detailed planning drawings/diagrams and outline the requirements for the creation of the chosen solution.	
Learning experience suggestions		
Asynchronous	Synchronous	Offline learning
Analysis of research from other tasks that contributes to the design brief. Virtual exhibition of design specifications. Use of computer-assisted drawing (CAD) software for solutions. Making surveys and polls for others to review the final chosen designs.	Group discussions to identify the design situation. Collaborative writing of design briefs. Mock interviews with students roleplaying stakeholders.	Printed materials would need to be provided for students working offline. The pack would need to include a sample design brief and a documentation that can be used for the research phase.
Scope for task adaptation		
Teachers have the option to alter any task in these resources; perhaps the biggest scope for adaptation lies with this design task. The scope of the task could be extended or reduced, depending on where students are in their design course. If their learning environment allows, students themselves may even take the task further to create and evaluate their design solution.		
For a breakdown of suggested forms the <i>planning drawings/diagrams (Biv)</i> could take, please see the design notes in the assessment materials section at the end of this document (taken from the design subject guide).		
Please note that this task, as with all others, has been modified for MYP1 and 3 in the respective student packs to reflect the relevant criteria and a suitable level of demand.		

Task	D	Subject grounding	Mathematics	Pre-release material sources	5, 7 (& additional resource 'Tuna fish farming')
Relevant inquiry questions		<p>Do governments, communities and individuals have equal responsibility to protect the environment?</p> <p>How do humans interrupt natural environmental processes?</p> <p>Can individuals really effect global change?</p>			
Task description		<p><i>Please note that this version of the task is provided in the MYP 5 student pack. Alternative task descriptions and support can be found in the student support packs for MYP 1 and 3.</i></p> <p>You are the owner of a bluefin tuna farm. Your farm is positioned at sea inside a circular space with diameter 280 metres and you have 80 000 juvenile bluefin tuna ready to move to the farm. Your task is to plan the layout of the farm and ensure you make the best use of the available space to maximize profits.</p> <p>Note the following information:</p> <ul style="list-style-type: none"> the average weight of a juvenile bluefin tuna 20 kg bluefin tuna gain approximately 10 kg in weight per year you will sell when the average weight reaches 70 kg. <p>Your plan should include the following:</p> <ul style="list-style-type: none"> Technical information – Specify how you can make the best use of the available space for your juvenile fish. Bluefin tuna characteristics – Specify how many fish you can keep in the pen, and what the feeding requirements are. Sales and profits of farmed bluefin tuna – Make calculations for the sales and profit when the fish are sold. <p>Design a farm with multiple cylindrical pens and make calculations for the relevant factors.</p> <p><i>* You should use the additional source supplementary to the pre-release material 'Infographic on bluefin tuna fish farming in Japan', and you may use any other clearly-referenced sources to help you as well.</i></p>			
Relevant objective strands		<p>Ciii. move between different forms of mathematical representation</p> <p>Di. identify relevant elements of authentic real-life situations</p> <p>Dii. select appropriate mathematical strategies when solving authentic real-life situations</p> <p>Diii. apply the selected mathematical strategies successfully to reach a solution</p> <p>Div. justify the degree of accuracy of a solution</p> <p>Dv. justify whether a solution makes sense in the context of the authentic real-life situation</p>			

Learning experience suggestions		
Asynchronous	Synchronous	Offline learning
<p>Make graphs out of data and information from reliable sources.</p> <p>Create infographics using infographic makers, icon generators or drawing software.</p> <p>Create posters, videos, websites or image galleries featuring you and your peers as influencers.</p> <p>Create or promote games and social apps that increase environmental awareness</p>	<p>Group discussions to identify the relevant factors and mathematical strategy.</p> <p>Share personal research</p>	<p>Hand-drawn scale drawings</p> <p>Mathematical calculations</p> <p>2D or 3D models of the bluefin farm</p>

Final interdisciplinary task – addressing the SOI using findings from subject-grounded tasks

Statement of inquiry	<p>Individuals, communities and governments, with their different perspectives, all have a role to play in promoting environmental sustainability.</p>
Inquiry questions	<p>Factual What is sustainability? What are the benefits of sustainability? What measures can communities and/or individuals take to help protect the environment?</p> <p>Conceptual In what ways do our individual choices contribute to global issues? How do humans interrupt natural environmental processes? How can designers balance the needs of the environment with the needs of stakeholders? How can data inform individuals? How can evidence be used to change perspectives?</p> <p>Debatable Do governments and communities/individuals have equal responsibility to protect the environment? Are all perspectives equally valid? Are systems essential for a sustainable future?</p> <p><i>Please note that some questions may be factual or conceptual, based on the discipline through which it is being explored or the stage of a student's education.</i></p>
Task description	<p>You are an environmental influencer; your task is to raise awareness of one of the issues highlighted by the subject grounded tasks and/or the pre-release material. You should produce an awareness *campaign that will attract a large number of followers and mobilize people to make a difference on a global scale. You must draw on what you have learned in the subject grounded tasks.</p> <p>In your *campaign you should raise awareness by:</p> <ul style="list-style-type: none"> • combining knowledge from at least two subjects • considering the perspectives of your target audiences • discrediting fake news and presenting evidence-based information • citing the pre-release material used (eg pre-release material Nov 2016 Source 2 Animal Welfare) • citing other sources. <p>To attract a large number of followers, you must identify different target audiences for your campaign, (for example, you may consider different age groups).</p> <p>For each identified target audience, you should consider which form(s) of communication would be most effective, (for example blogs, presentations, podcasts,</p>

	<p>adverts, social media posts, three-dimensional structures, infographics, debates, videos, musical compositions, calls to action).</p> <p>*Campaign: a planned series of actions. (In this case, it will be several different communications. These can be all the same form – such as a series of blogs – or they can be in different forms).</p> <p>You should specify the target audience for each of the communications you produce. You may also wish to include a brief overview of the entire campaign.</p>	
Relevant objective strands	<p>Bi. Synthesize disciplinary knowledge to demonstrate interdisciplinary understanding</p> <p>Ci. Use appropriate strategies to communicate interdisciplinary understanding effectively</p> <p>Cii. Document sources using recognized conventions</p>	
Learning experience suggestions		
Asynchronous	Synchronous	Offline learning
<p>Make graphs out of data and information from reliable sources</p> <p>Create infographics using infographic makers, icon generators or drawing software</p> <p>Create posters, videos, websites or image galleries featuring you and your peers as influencers</p> <p>Create or promote games and social apps that increase environmental awareness</p>	<p>Run a virtual chat or broadcast a debate and invite others to participate</p> <p>Compose music or an art installation collaboratively with peers using online tools</p>	<p>Create a sign or display that can be placed on your window or balcony</p> <p>Join or create a campaign for promoting sustainability at home that can be shared later via telephone or online</p> <p>Compose and perform music or create art that people can hear or see from a distance</p>

Assessment materials

Relevant assessment criteria have been selected for each task, these can also be found in the **student resource pack**.

While task-specific clarifications for each level of achievement have been provided for the interdisciplinary task and the other subject-grounded tasks for Inquiry A, in design the distinction between different levels of achievement is made very clear by the use of different command terms, therefore task-specific clarifications are not necessary.

To facilitate marking and enhance student understanding, we have included the definition of the relevant command terms and the additional notes for criteria A and B from the subject guide. (These notes can be found at the end of the section titled "Design assessment criteria: Year 5" in *Middle Years Programme: Design guide*).

Please note: As task D does not require students to create a solution, we have modified the first note for criterion B.

Task A – Integrated sciences

MYP 5 – Task A		
Level	Level descriptor	Task-specific clarification
7-8	<p>Ai. explain scientific knowledge</p> <p>Aiii. analyse and evaluate information to make scientifically supported judgments</p> <p>Di. explain the ways in which science is applied and used to address a specific problem or issue</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> Explains the full journey of carbon in the carbon cycle, linking to how steps are influenced by humans <u>and</u> how carbon compounds change Explains a range of human activities that damage the environment (examples that are <u>and</u> are not due to carbon emissions), linking them to and explaining the consequences and their impact <p><u>Aiii</u></p> <ul style="list-style-type: none"> Analyses how a wide range of these consequences may affect future generations and how they may link to each other, then makes a scientifically-supported judgement about which are the most significant Analyses the effectiveness of alternatives/ changes by detailing their advantages and disadvantages, and making a scientifically-supported recommendation Evaluates the validity of the information used <p><u>Di</u></p> <ul style="list-style-type: none"> Explains how a range of alternatives/ changes would reduce damage to the environment (including the current activity each would replace, explaining why the alternative/change does not cause the same harm)
5-6	<p>Ai. describe scientific knowledge</p> <p>Aiii. analyse information to make scientifically supported judgments.</p> <p>Di. describe the ways in which science is applied and used to</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> Describes the full journey of carbon in the carbon cycle, including which steps are influenced by humans <u>or</u> describing how carbon compounds change

	address a specific problem or issue	<ul style="list-style-type: none"> • Describes human activities that damage the environment (examples that are <u>and</u> are not due to carbon emissions), with a description of what the direct consequences are <p><u>Aiii</u></p> <ul style="list-style-type: none"> • Analyses how several of these consequences may affect future generations and how they may link to each other, then makes a scientifically-supported judgement about which are the most significant • Analyses the effectiveness of the alternatives/ changes by detailing their advantages and disadvantages, and making a scientifically-supported recommendation <p><u>Di</u></p> <ul style="list-style-type: none"> • Describes a range of alternatives/ changes that would reduce damage to the environment (including the current activity each would replace)
3-4	<p>Ai. outline scientific knowledge</p> <p>Aiii. interpret information to make scientifically supported judgments.</p> <p>Di. summarize the ways in which science is applied and used to address a specific problem or issue</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> • Outlines details of most of the steps in the carbon cycle • Outlines details of human activities that damage the environment (including examples that are due to carbon emissions), with an outline of some consequences <p><u>Aiii</u></p> <ul style="list-style-type: none"> • Interprets how some of these consequences may affect future generations, and makes a scientifically-supported judgement about which are the most significant • Interprets the effectiveness of the changes by detailing how they would help, and making a scientifically-supported recommendation <p><u>Di</u></p> <ul style="list-style-type: none"> • Summarizes some general and specific changes that individuals/ governments could make that would reduce damage to the environment
1-2	<p>Ai. state scientific knowledge</p> <p>Aiii. interpret information to make judgments.</p> <p>Di. outline the ways in which science is used to address a specific problem or issue</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> • States a range of steps in the carbon cycle • States human activities that damage the environment, and states some future consequences <p><u>Aiii</u></p> <ul style="list-style-type: none"> • Interprets information to make a judgement about which consequences are the most significant, but without giving details about how it was decided • Interprets information to make a recommendation about which change(s) should take priority, but without giving details about how it was decided <p><u>Di</u></p> <ul style="list-style-type: none"> • Outlines details of some general changes that individuals/ governments could make that would reduce damage to the environment

MYP 3 – Task A

Level	Level descriptor	Task-specific clarification
7-8	<p>Ai. describe scientific knowledge</p> <p>Aiii. analyse information to make scientifically supported judgments.</p> <p>Di. describe the ways in which science is applied and used to address a specific problem or issue</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> Describes the full journey of carbon in the carbon cycle, including which steps are influenced by humans <u>or</u> describing how carbon compounds change Describes human activities that damage the environment (examples that are <u>and</u> are not due to carbon emissions), with a description of what the direct consequences are <p><u>Aiii</u></p> <ul style="list-style-type: none"> Analyses how several of these consequences may affect future generations and how they may link to each other, then makes a scientifically-supported judgement about which are the most significant Analyses the effectiveness of the alternatives/ changes by detailing their advantages and disadvantages, and making a scientifically-supported recommendation <p><u>Di</u></p> <ul style="list-style-type: none"> Describes a range of alternatives/ changes that would reduce damage to the environment (including the current activity each would replace)
5-6	<p>Ai. outline scientific knowledge</p> <p>Aiii. interpret information to make scientifically supported judgments.</p> <p>Di. summarize the ways in which science is applied and used to address a specific problem or issue</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> Outlines details of most of the steps in the carbon cycle Outlines details of human activities that damage the environment (including examples that are due to carbon emissions), with an outline of some consequences <p><u>Aiii</u></p> <ul style="list-style-type: none"> Interprets how some of these consequences may affect future generations, and makes a scientifically-supported judgement about which are the most significant Interprets the effectiveness of the changes by detailing how they would help, and making a scientifically-supported recommendation <p><u>Di</u></p> <ul style="list-style-type: none"> Summarizes some general and specific changes that individuals/ governments could make that would reduce damage to the environment
3-4	<p>Ai. state scientific knowledge</p> <p>Aiii. apply information to make scientifically supported judgments</p> <p>Di. outline the ways in which science is used to address a specific problem or issue</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> States a range of steps in the carbon cycle States human activities that damage the environment, and states some future consequences <p><u>Aiii</u></p> <ul style="list-style-type: none"> Applies information to make a scientifically-supported judgement about which consequences are the most significant, but without giving details about how it was decided Applies information to make a scientifically-supported recommendation about which change(s) should take priority, but without giving details about how it was decided

		<u>Di</u> <ul style="list-style-type: none"> • Outlines details of some general changes that individuals/ governments could make that would reduce damage to the environment
1-2	<p>Ai. recall scientific knowledge</p> <p>Aiii. apply information to make judgments.</p> <p>Di. state the ways in which science is used to address a specific problem or issue</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> • Recalls the names of some stages of the carbon cycle • Recalls some human activities that damage the environment, and some future consequences <p><u>Aiii</u></p> <ul style="list-style-type: none"> • Applies information to make a judgement about which consequences are the most significant, but without giving details about how it was decided • Applies information to make a recommendation about which change(s) should take priority, but without giving details about how it was decided <p><u>Di</u></p> <ul style="list-style-type: none"> • States some changes that individuals/ governments could make that would reduce damage to the environment

MYP 1 – Task A

Level	Level descriptor	Task-specific clarification
7-8	<p>Ai. outline scientific knowledge</p> <p>Aiii. interpret information to make scientifically supported judgments.</p> <p>Di. summarize the ways in which science is applied and used to address a specific problem or issue</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> • Outlines details of most of the steps in the carbon cycle • Outlines details of human activities that damage the environment (including examples that are due to carbon emissions), with an outline of some consequences <p><u>Aiii</u></p> <ul style="list-style-type: none"> • Interprets how some of these consequences may affect future generations, and makes a scientifically-supported judgement about which are the most significant • Interprets the effectiveness of the changes by detailing how they would help, and making a scientifically-supported recommendation <p><u>Di</u></p> <ul style="list-style-type: none"> • Summarizes some general and specific changes that individuals/ governments could make that would reduce damage to the environment
5-6	<p>Ai. state scientific knowledge</p> <p>Aiii. apply information to make scientifically supported judgments</p> <p>Di. outline the ways in which science is used to address a specific problem or issue</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> • States a range of steps in the carbon cycle • States human activities that damage the environment, and states some future consequences <p><u>Aiii</u></p> <ul style="list-style-type: none"> • Applies information to make a scientifically-supported judgement about which consequences are the most significant, but without giving details about how it was decided • Applies information to make a scientifically-supported recommendation about which change(s) should take priority, but without giving details about how it was decided <p><u>Di</u></p> <ul style="list-style-type: none"> • Outlines details of some general changes that individuals/ governments could make that would reduce damage to the environment
3-4	<p>Ai. recall scientific knowledge</p> <p>Aiii. apply information to make judgments</p> <p>Di. state the ways in which science is used to address a specific problem or issue</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> • Recalls the names of some stages of the carbon cycle • Recalls some human activities that damage the environment, and some future consequences <p><u>Aiii</u></p> <ul style="list-style-type: none"> • Applies information to make a judgement about which consequences are the most significant, but without giving details about how it was decided • Applies information to make a recommendation about which change(s) should take priority, but without giving details about how it was decided <p><u>Di</u></p>

		<ul style="list-style-type: none"> • States some changes that individuals/ governments could make that would reduce damage to the environment
1-2	<p>Ai. select scientific knowledge</p> <p>Aiii. apply information to make judgments, with limited success.</p> <p>Di. state the ways in which science is used to address a specific problem or issue, with limited success.</p>	<p>The student:</p> <p><u>Ai</u></p> <ul style="list-style-type: none"> • Selects (from a list) the names of some stages of the carbon cycle • Selects (from a list) some human activities that damage the environment, and future consequences <p><u>Aiii</u></p> <ul style="list-style-type: none"> • Applies information to make a judgement about which consequences are the most significant with limited success, and without giving details about how it was decided • Applies information to make a recommendation about which change(s) should take priority with limited success, and without giving details about how it was decided <p><u>Di</u></p> <ul style="list-style-type: none"> • States changes that individuals/ governments could make that would reduce damage to the environment, with limited success

Task B – Individuals and societies

MYP 5 – Task B		
Level	Level descriptor	Task-specific clarification
7-8	<p>Dii. synthesizes information to make valid, well-supported arguments</p> <p>Diii. effectively analyses and evaluates a range of sources/data in terms of origin and purpose, consistently recognizing value and limitations</p> <p>Div. thoroughly interprets a range of different perspectives and their implications.</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> Synthesizes information about the advantages and disadvantages of at least 5 fishing methods, and links these to the wellbeing of the environment and the city. Comparisons between the methods are made Gives a valid conclusion that is well-supported by highlighting the deciding factors in their argument <p><u>Diii</u></p> <ul style="list-style-type: none"> Analyses and evaluates the origin and purpose of <u>all</u> relevant provided sources and at least 3 additional sources, and consistently uses this to recognize their value and limitations <p><u>Div</u></p> <ul style="list-style-type: none"> Interprets at least 4 different stakeholder perspectives on sustainable fishing, including why they hold that viewpoint. The implications of the law changes on all these stakeholders are given, and some possible solutions may be suggested if they are negative
5-6	<p>Dii. synthesizes information to make valid arguments</p> <p>Diii. effectively analyses and evaluates a range of sources/data in terms of origin and purpose, usually recognizing value and limitations</p> <p>Div. interprets different perspectives and their implications.</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> Synthesizes information about the advantages and disadvantages of at least 4 fishing methods, and links these to the wellbeing of the environment. Comparisons between some of the methods are made Gives a valid conclusion based on the factors detailed in their argument <p><u>Diii</u></p> <ul style="list-style-type: none"> Analyses and evaluates the origin and purpose of <u>most</u> relevant provided sources and at least 2 additional sources, and usually uses this to recognize their value and limitations <p><u>Div</u></p> <ul style="list-style-type: none"> Interprets at least 3 different stakeholder perspectives on sustainable fishing, including why they hold that viewpoint. The implications of the law changes on all these stakeholders are given
3-4	<p>Dii. summarizes information to make arguments</p> <p>Diii. analyses and/or evaluates sources/data in terms of origin and purpose, recognizing some value and limitations</p> <p>Div. interprets different perspectives and some of their implications.</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> Summarizes information about the advantages and disadvantages of at least 3 fishing methods, with some inconsistent links to the wellbeing of the environment. Each method is summarized in isolation, with little comparison between them Gives a conclusion, but it may not clearly reflect the factors detailed in their argument <p><u>Diii</u></p> <ul style="list-style-type: none"> Analyses and/or evaluates the origin and purpose of <u>some</u> relevant provided sources and at least 1 additional source, and sometimes uses this to recognize their value and limitations <p><u>Div</u></p>

		<ul style="list-style-type: none"> • Interprets at least 3 different stakeholder perspectives on sustainable fishing including why they hold that viewpoint. The implications of the law changes on some of these stakeholders are given
1-2	<p>Dii. summarizes information to a limited extent to make arguments</p> <p>Diii. describes a limited number of sources/ data in terms of origin and purpose and recognizes nominal value and limitations</p> <p>Div. identifies different perspectives and minimal implications.</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> • Summarizes information about some advantages and/or disadvantages of at least 2 fishing methods, but without linking to the wellbeing of the environment. No comparisons are made • Does not provide a conclusion <p><u>Diii</u></p> <ul style="list-style-type: none"> • Uses information from provided sources only, and describes the origin and purpose of one source, but does not use it to recognize value and limitations <p><u>Div</u></p> <ul style="list-style-type: none"> • Identifies at least 3 different stakeholder perspectives on sustainable fishing. The implications of the law changes on at least 1 of these stakeholders are given, but may be unclear or incorrect

MYP 3 – Task B

Level	Level descriptor	Task-specific clarification
7-8	<p>Dii. summarizes information to make consistent, well-supported arguments</p> <p>Diii. effectively analyses a range of sources/data in terms of origin and purpose, consistently recognizing value and limitations</p> <p>Div. clearly recognizes different perspectives and consistently explains their implications.</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> Summarizes information about the advantages and disadvantages of at least 5 fishing methods, with links to the wellbeing of the environment. Some comparisons of different methods may be given Gives a conclusion that is well-supported by highlighting the deciding factors in their argument <p><u>Diii</u></p> <ul style="list-style-type: none"> Analyses the origin and purpose of <u>all</u> relevant provided sources and at least 2 additional sources, and consistently uses this to recognize their value and limitations <p><u>Div</u></p> <ul style="list-style-type: none"> Recognizes at least 3 different stakeholder perspectives on sustainable fishing, then explains what the implications of the law changes will be for all of them, and the causes of each implication
5-6	<p>Dii. summarizes information in order to make usually valid arguments</p> <p>Diii. analyses sources/data in terms of origin and purpose, usually recognizing value and limitations</p> <p>Div. clearly recognizes different perspectives and describes most of their implications.</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> Summarizes information about the advantages and disadvantages of at least 4 fishing methods, with occasional links to the wellbeing of the environment. Each method is summarized in isolation Gives a valid conclusion that mostly reflects the factors detailed in their argument <p><u>Diii</u></p> <ul style="list-style-type: none"> Analyses the origin and purpose of <u>most</u> relevant provided sources and at least 2 additional sources, and usually uses this to recognize their value and limitations <p><u>Div</u></p> <ul style="list-style-type: none"> Recognizes at least 3 different stakeholder perspectives on sustainable fishing, then describes what the implications of the law changes will be for at least 2 of them
3-4	<p>Dii. summarizes information to make some adequate arguments</p> <p>Diii. analyses sources/data in terms of origin and purpose, recognizing some value and limitations</p> <p>Div. recognizes different perspectives and suggests some of their implications.</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> Summarizes information about the advantages and/or disadvantages of at least 3 fishing methods. Each method is summarized in isolation Gives a conclusion <p><u>Diii</u></p> <ul style="list-style-type: none"> Analyses the origin and purpose of <u>some</u> relevant provided sources and at least 1 additional source, and sometimes uses this to recognize their value and limitations <p><u>Div</u></p> <ul style="list-style-type: none"> Recognizes at least 2 different stakeholder perspectives on sustainable fishing, then suggests what the implications of the law changes will be for at least 1 of them (though this may be incomplete or incorrect)

1-2	<p>Dii. begins to identify connections between information to make simple arguments</p> <p>Diii. recognizes the origin and purpose of few sources/data as well as nominal value and limitations of sources/data</p> <p>Div. identifies different perspectives.</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> • Identifies simple points about at least 2 fishing methods, but it may not be clear if these are presented as advantages or disadvantages • A simple comparison may be made, but no conclusion is given <p><u>Diii</u></p> <ul style="list-style-type: none"> • Uses information from some relevant provided sources only, and recognizes the origin and purpose of one source, but may not <u>use it</u> to recognize its value and limitations <p><u>Div</u></p> <ul style="list-style-type: none"> • Identifies at least 2 different stakeholder perspectives on sustainable fishing
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MYP 1 – Task B

Level	Level descriptor	Task-specific clarification
7-8	<p>Dii. gives detailed justification of opinions using information</p> <p>Diii. consistently identifies and analyses a range of sources/data in terms of origin and purpose</p> <p>Div. consistently identifies different views and their implications</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> Gives detailed information about at least 3 fishing methods, including how they work and why they are sustainable/ not sustainable Gives an opinion on which method is best, and why <p><u>Diii</u></p> <ul style="list-style-type: none"> Uses information from the relevant provided sources and at least 2 additional sources of their own, consistently identifying their origin and purpose in order to analyse their reliability <p><u>Div</u></p> <ul style="list-style-type: none"> Identifies at least 4 different stakeholder views on sustainable fishing, then identifies simply how the law changes will affect all of them
5-6	<p>Dii. gives sufficient justification of opinions using information</p> <p>Diii. identifies the origin and purpose of a range of sources/data</p> <p>Div. identifies different views and most of their implications.</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> Gives information about at least 3 fishing methods, including how they work or why they are sustainable/ not sustainable Gives an opinion on which method is best, and why <p><u>Diii</u></p> <ul style="list-style-type: none"> Uses information from the relevant provided sources and at least 1 additional source of their own, identifying the origin and purpose of most of them <p><u>Div</u></p> <ul style="list-style-type: none"> Identifies at least 3 different stakeholder views on sustainable fishing, then identifies simply how the law changes will affect most of them
3-4	<p>Dii. justifies opinions with some information</p> <p>Diii. identifies the origin and purpose of sources/data</p> <p>Div. identifies some different views and suggests some of their implications</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> Gives information about at least 2 fishing methods Gives an opinion on which method is best <p><u>Diii</u></p> <ul style="list-style-type: none"> Uses information from the relevant provided sources only, identifying the origin and purpose of at least 2 of them <p><u>Div</u></p> <ul style="list-style-type: none"> Identifies at least 2 different stakeholder views on sustainable fishing, then suggests what the implications of the law changes will be for at least 1 of them (though this may be incomplete or incorrect)
1-2	<p>Dii. rarely uses information to justify opinions</p> <p>Diii. identifies the origin and purpose of limited sources/data</p> <p>Div. identifies some different views.</p>	<p>The student:</p> <p><u>Dii</u></p> <ul style="list-style-type: none"> Gives an opinion on which method is best, but with little information about fishing methods <p><u>Diii</u></p> <ul style="list-style-type: none"> Uses information from only 1 of the relevant provided sources and/or identifying the origin and purpose of only 1 source

		<div>Div</div> <ul style="list-style-type: none"> Identifies at least 2 different stakeholder views on sustainable fishing
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Task C – Design

MYP 5 – Task C		
Level	Level descriptor	Additional notes and definitions of command terms
7-8	<p>Ai. explains and justifies the need for a solution to a problem for a client/ target audience</p> <p>Aiii. analyses a range of existing products that inspire a solution to the problem in detail</p> <p>Aiv. develops detailed design brief, which summarizes the analysis of relevant research.</p> <p>Bi. develops detailed design specifications, which explain the success criteria for the design of a solution based on the analysis of the research</p> <p>Bii. develops a range of feasible design ideas, using an appropriate medium(s) and detailed annotation, which can be correctly interpreted by others</p> <p>Biii. presents the chosen design and justifies fully and critically its selection with detailed reference to the design specification</p> <p>Biv. develops accurate and detailed planning drawings/diagrams and outlines requirements for the creation of the chosen solution.</p>	<p>Additional notes</p> <p>Criterion A</p> <p>When developing the design brief, students should concisely summarize only the useful and relevant information they have found through their *research. They will present this information in their own words. Students should not copy and paste information from sources without analysis or indicating relevance.</p> <p>*Research is more than simply using the pre-release materials; students are required to do independent research on the community, the client and the solution.</p> <p>Criterion B</p> <ul style="list-style-type: none"> • For this task, a feasible idea (Bii) is one that could be created in the community specified by the student. To evidence that an idea is feasible, the annotations would need to include approximate cost, location and dimensions. • Examples of “planning drawings/diagrams” for digital design solutions include website navigation maps, interface layout—aesthetic considerations (websites), detailed sketches (graphic design), detailed storyboards (video editing and animations), and so on. • Examples of “planning drawings/diagrams” for product design solutions include scale drawing with measurements (orthographic), part and assembly drawings, exploded drawings, recipes, cutting plans, and so on. <p>Definitions of command terms</p> <p>Explain: Give a detailed account including reasons or causes. (See also “Justify”.)</p> <p>Justify: Give valid reasons or evidence to support an answer or conclusion. (See also “Explain”.)</p> <p>Analyse: Break down in order to bring out the essential elements or structure. (To identify parts and relationships, and to interpret information to reach conclusions.)</p> <p>Develop: To improve incrementally, elaborate or expand in detail. Evolve to a more advanced or effective state.</p> <p>Summarize: Abstract a general theme or major point(s)</p>
5-6	<p>Ai. explains the need for a solution to a problem for a specified client/target audience.</p> <p>Aiii. analyses a range of existing products that inspire a solution to the problem</p> <p>Aiv. develops a design brief, which explains the analysis of relevant research.</p> <p>Bi. develops design specifications, which outline the success criteria for the design of a solution</p> <p>Bii. develops a range of feasible design ideas, using an appropriate medium(s) and annotation, which can be interpreted by others</p> <p>Biii. presents the chosen design and justifies its selection with reference to the design specification</p> <p>Biv. develops accurate planning drawings/diagrams and lists requirements for the creation of the chosen solution.</p>	<p>Definitions of command terms</p> <p>Explain: Give a detailed account including reasons or causes. (See also “Justify”.)</p> <p>Justify: Give valid reasons or evidence to support an answer or conclusion. (See also “Explain”.)</p> <p>Analyse: Break down in order to bring out the essential elements or structure. (To identify parts and relationships, and to interpret information to reach conclusions.)</p> <p>Develop: To improve incrementally, elaborate or expand in detail. Evolve to a more advanced or effective state.</p> <p>Summarize: Abstract a general theme or major point(s)</p>

<p>3-4</p>	<p>Ai. outlines the need for a solution to a problem for a specified client/target audience.</p> <p>Aiii. analyses one existing product that inspire a solution to the problem</p> <p>Aiv. develops a design brief, which outlines the analysis of relevant research.</p> <p>Bi. lists some design specifications, which relate to the success criteria for the design of a solution</p> <p>Bii. presents a few feasible designs, using an appropriate medium(s) or annotation, which can be interpreted by others</p> <p>Biii. justifies the selection of the chosen design with reference to the design specification</p> <p>Biv. creates planning drawings/diagrams or lists requirements for the creation of the chosen solution.</p>	<p>Present: Offer for display, observation, examination or consideration.</p> <p>Outline: Give a brief account or summary.</p> <p>List: Give a sequence of brief answers with no explanation</p> <p>State: Give a specific name, value or other brief answer without explanation or calculation.</p> <p>Create: To evolve from one's own thought or imagination, as a work or an invention.</p>
<p>1-2</p>	<p>Ai. states the need for a solution to a problem for a specified client/target audience.</p> <p>Aii. develops a basic design brief, which states the findings of relevant research</p> <p>Bi. lists some basic design specifications for the design of a solution</p> <p>Bii. presents one design, which can be interpreted by others</p> <p>Biii. creates incomplete planning drawings/diagrams.</p>	

MYP 3 – Task C		
Level	Level descriptor	Additional notes and definitions of command terms
7-8	<p>Ai. explains and justifies the need for a solution to a problem</p> <p>Aiii. analyses a group of similar products that inspire a solution to the problem</p> <p>Aiv. develops a design brief, which presents the analysis of relevant research.</p> <p>Bi. develops a design specification, which outlines the success criteria for the design of a solution based on the data collected</p> <p>Bii. presents a range of feasible design ideas, using an appropriate medium(s) and annotation, which can be correctly interpreted by others</p> <p>Biii. presents the chosen design and outlines the reasons for its selection with reference to the design specification</p> <p>Biv. develops accurate planning drawings/diagrams and outlines requirements for the creation of the chosen solution.</p>	<p>Additional notes (adapted for MYP 3)</p> <p>Criterion A</p> <p>When developing the design brief, students should present only the useful and relevant information they have found through their *research. They will present this information in their own words. Students should not copy and paste information from sources without analysis or indicating relevance.</p> <p>*Research is more than simply using the pre-release materials; students are required to do independent research on the community and on products that inspire a solution to the problem.</p> <p>Criterion B</p> <ul style="list-style-type: none"> For this task, a feasible idea (Bii) is one that could be created in the community specified by the student. To evidence that an idea is feasible, the annotations would need to include approximate cost, location and dimensions. Examples of “planning drawings/diagrams” for digital design solutions include website navigation maps, interface layout—aesthetic considerations (websites), detailed sketches (graphic design), detailed storyboards (video editing and animations), and so on. Examples of “planning drawings/diagrams” for product design solutions include scale drawing with measurements (orthographic), part and assembly drawings, exploded drawings, recipes, cutting plans, and so on. <p>Definitions of command terms</p> <p>Explain: Give a detailed account including reasons or causes. (See also “Justify”.)</p> <p>Justify: Give valid reasons or evidence to support an answer or conclusion. (See also “Explain”.)</p> <p>Analyse: Break down in order to bring out the essential elements or structure. (To identify parts and relationships, and to interpret information to reach conclusions.)</p> <p>Develop: To improve incrementally, elaborate or expand in detail. Evolve to a more advanced or effective state.</p> <p>Summarize: Abstract a general theme or major point(s)</p> <p>Present: Offer for display, observation, examination or consideration.</p> <p>Outline: Give a brief account or summary.</p>
5-6	<p>Ai. explains the need for a solution to a problem.</p> <p>Aiii. describes a group of similar products that inspire a solution to the problem</p> <p>Aiv. develops a design brief, which outlines the findings of relevant research.</p> <p>Bi. develops design specifications, which identify the success criteria for the design of a solution</p> <p>Bii. presents a range of feasible design ideas, using an appropriate medium(s) and explains key features, which can be interpreted by others</p> <p>Biii. presents the chosen design and outlines the main reasons for its selection with reference to the design specification</p> <p>Biv. develops accurate planning drawings/diagrams and lists requirements for the creation of the chosen solution.</p>	
3-4	<p>Ai. outlines the need for a solution to a problem.</p> <p>Aiii. outlines one existing product that inspires a solution to the problem</p> <p>Aiv. develops a basic design brief, which outlines some of the findings of relevant research.</p>	

	<p>Bi. constructs a list of the success criteria for the design of a solution</p> <p>Bii. presents a few feasible design ideas, using an appropriate medium(s) or explains key features, which can be interpreted by others</p> <p>Biii. outlines the main reasons for choosing the design with reference to the design specification</p> <p>Biv. creates planning drawings/diagrams or lists requirements for the creation of the chosen solution.</p>	<p>List: Give a sequence of brief answers with no explanation</p> <p>State: Give a specific name, value or other brief answer without explanation or calculation.</p> <p>Create: To evolve from one's own thought or imagination, as a work or an invention.</p> <p>Identify: Provide an answer from a number of possibilities. Recognize and state briefly a distinguishing fact or feature.</p>
1-2	<p>Ai. states the need for a solution to a problem.</p> <p>Aii. states some of the main findings of relevant research</p> <p>Bi. lists a few basic success criteria for the design of a solution</p> <p>Bii. presents one feasible design idea, which can be interpreted by others</p> <p>Biii. creates incomplete planning drawings/diagrams.</p>	<p>Construct: Display information in a diagrammatic or logical form.</p>

MYP 1 – Task C		
Level	Level descriptor	Additional notes and definitions of command terms
7-8	<p>Ai. explains and justifies the need for a solution to a problem</p> <p>Aiii. describes the main features of an existing product that inspires a solution to the problem</p> <p>Aiv. presents the main findings of relevant research</p> <p>Bi. develops a list of success criteria for the solution</p> <p>Bii. presents feasible design ideas, using an appropriate medium(s) and outlines the key features, which can be correctly interpreted by others</p> <p>Biii. presents the chosen design describing the key features</p> <p>Biv. creates a planning drawing/diagram, which outlines the main details for making the chosen solution</p>	<p>Additional notes (adapted for MYP 1)</p> <p>Criterion A</p> <p>Students should present the information they have found through their *research in their own words. Students should not copy and paste information from sources.</p> <p>*Research is more than simply using the pre-release materials; students are required to do independent research on the community and on products that inspire a solution to the problem.</p> <p>Criterion B</p> <ul style="list-style-type: none"> For this task, a feasible idea (Bii) is one that could be created in the community specified by the student. To evidence that an idea is feasible, the key features would need to include approximate cost, location and dimensions. Examples of “planning drawings/diagrams” for digital design solutions include website navigation maps, interface layout—aesthetic considerations (websites), detailed sketches (graphic design), detailed storyboards (video editing and animations), and so on. Examples of “planning drawings/diagrams” for product design solutions include scale drawing with measurements (orthographic), part and assembly drawings, exploded drawings, recipes, cutting plans, and so on. <p>Definitions of command terms</p> <p>Explain: Give a detailed account including reasons or causes. (See also “Justify”.)</p> <p>Justify: Give valid reasons or evidence to support an answer or conclusion. (See also “Explain”.)</p> <p>Analyse: Break down in order to bring out the essential elements or structure. (To identify parts and relationships, and to interpret information to reach conclusions.)</p> <p>Develop: To improve incrementally, elaborate or expand in detail. Evolve to a more advanced or effective state.</p> <p>Summarize: Abstract a general theme or major point(s)</p> <p>Present: Offer for display, observation, examination or consideration.</p> <p>Outline: Give a brief account or summary.</p>
5-6	<p>Ai. explains the need for a solution to a problem</p> <p>Aiii. outlines the main features of an existing product that inspires a solution to the problem</p> <p>Aiv. outlines the main findings of relevant research</p> <p>Bi. develops a few success criteria for the solution</p> <p>Bii. presents a few feasible design ideas, using an appropriate medium(s) and labels key features, which can be interpreted by others</p> <p>Biii. presents the chosen design stating the key features</p> <p>Biv. creates a planning drawing/diagram and lists the main details for the creation of the chosen solution</p>	
3-4	<p>Ai. outlines the need for a solution to a problem</p> <p>Aiii. states the main features of an existing product that inspires a solution to the problem</p> <p>Aiv. Outlines some of the main findings of relevant research</p> <p>Bi. states a few success criteria for the solution</p> <p>Bii. presents more than one design ideas using an appropriate medium(s) or labels key features, which can be interpreted by others</p>	

	<p>Biii. states the key features of the chosen design</p> <p>Biv. creates a planning drawing/diagram or lists requirements for the creation of the chosen solution</p>	<p>List: Give a sequence of brief answers with no explanation</p> <p>State: Give a specific name, value or other brief answer without explanation or calculation.</p>
1-2	<p>Ai. states the need for a solution to a problem</p> <p>Aii. states the findings of research</p> <p>Bi. states one basic success criterion for a solution</p> <p>Bii. presents one design idea which can be interpreted by others</p> <p>Biii. creates an incomplete planning drawing/diagram</p>	<p>Create: To evolve from one's own thought or imagination, as a work or an invention.</p> <p>Identify: Provide an answer from a number of possibilities. Recognize and state briefly a distinguishing fact or feature.</p> <p>Construct: Display information in a diagrammatic or logical form.</p>

Task D – Mathematics (please see [Task D teacher support notes](#) for further examples)

MYP 5 – Task D		
Level	Level descriptor	Task-specific clarification
7-8	<p>Ciii. move effectively between different forms of mathematical representation.</p> <p>Di. identify the relevant elements of the authentic real-life situation</p> <p>Dii. select appropriate mathematical strategies to model the authentic real-life situation</p> <p>Diii. apply the selected mathematical strategies to reach a correct solution to the authentic real-life situation</p> <p>Div. justify the degree of accuracy of the solution</p> <p>Dv. justify whether the solution makes sense in the context of the authentic real-life situation.</p>	<p>The student:</p> <p><u>Ciii</u></p> <ul style="list-style-type: none"> demonstrates the ability to move between all the information provided in the infographic to the scenario <p><u>Di</u></p> <ul style="list-style-type: none"> identifies at least three relevant factors <p><u>Dii</u></p> <ul style="list-style-type: none"> has selected at least three correct mathematical strategies <p><u>Diii</u></p> <ul style="list-style-type: none"> has supporting calculations, that are fully correct, for the geometrical shapes, characteristics of the fish and sales and profit <p><u>Div</u></p> <ul style="list-style-type: none"> justifies the degree of accuracy by considering the averages and by rounding values <p><u>Dv</u></p> <ul style="list-style-type: none"> justifies if their calculations make sense by referring to the constraints.
5-6	<p>Ciii. usually move between different forms of mathematical representation</p> <p>Di. identify the relevant elements of the authentic real-life situation</p> <p>Dii. select adequate mathematical strategies to model the authentic real-life situation</p> <p>Diii. apply the selected mathematical strategies to reach a valid solution to the authentic real-life situation</p> <p>Div. explain the degree of accuracy of the solution</p> <p>Dv. explain whether the solution makes sense in the context of the authentic real-life situation.</p>	<p>The student:</p> <p><u>Ciii</u></p> <ul style="list-style-type: none"> demonstrates the ability to move between most of the information provided in the infographic to the scenario <p><u>Di</u></p> <ul style="list-style-type: none"> identifies at least two relevant factors <p><u>Dii</u></p> <ul style="list-style-type: none"> has selected at least two correct mathematical strategies <p><u>Diii</u></p> <ul style="list-style-type: none"> has supporting calculations, at least two fully correct, for the geometrical shapes, characteristics of the fish and sales and profit <p><u>Div</u></p> <ul style="list-style-type: none"> explains the degree of accuracy by considering the averages or by rounding values <p><u>Dv</u></p> <ul style="list-style-type: none"> explains if their calculations make sense by referring to the constraints.
3-4	<p>Di. identify the relevant elements of the authentic real-life situation</p> <p>Dii. select, with some success, adequate mathematical strategies to model the authentic real-life situation</p>	<p>The student:</p> <p><u>Di</u></p> <ul style="list-style-type: none"> identifies at least two relevant factors <p><u>Dii</u></p>

	<p>Diii. apply mathematical strategies to reach a solution to the authentic real-life situation</p> <p>Div. discuss whether the solution makes sense in the context of the authentic real-life situation.</p>	<ul style="list-style-type: none"> has selected at least one correct mathematical strategy <p><u>Diii</u></p> <ul style="list-style-type: none"> has supporting calculations, at least one fully correct, for the geometrical shapes, characteristics of the fish and sales and profit <p><u>Div</u></p> <ul style="list-style-type: none"> describes if their calculations make sense by referring to the constraints.
1-2	<p>Di. identify some of the elements of the authentic real-life situation</p> <p>Dii. apply mathematical strategies to find a solution to the authentic real-life situation, with limited success.</p>	<p>The student:</p> <p><u>Di</u></p> <ul style="list-style-type: none"> identifies at least one relevant factor <p><u>Dii</u></p> <ul style="list-style-type: none"> has supporting calculations, at least one fully correct, for one of the geometrical shapes, characteristics of the fish or sales and profit.

MYP 3 – Task D

Level	Level descriptor	Task-specific clarification
7-8	<p>Ciii. move effectively between different forms of mathematical representation</p> <p>Di. identify the relevant elements of the authentic real-life situation</p> <p>Dii. select appropriate mathematical strategies to model the authentic real-life situation</p> <p>Diii. apply the selected mathematical strategies to reach a correct solution</p> <p>Div. explain the degree of accuracy of the solution</p> <p>Dv. explain whether the solution makes sense in the context of the authentic real-life situation.</p>	<p>The student:</p> <p><u>Ciii</u></p> <ul style="list-style-type: none"> demonstrates the ability to move between all the information provided in the infographic to the scenario <p><u>Di</u></p> <ul style="list-style-type: none"> identifies at least three relevant factors <p><u>Dii</u></p> <ul style="list-style-type: none"> has selected at least two correct mathematical strategies <p><u>Diii</u></p> <ul style="list-style-type: none"> has supporting calculations, that are fully correct, for the geometrical shapes, characteristics of the fish and sales and profit <p><u>Div</u></p> <ul style="list-style-type: none"> explains the degree of accuracy by considering the averages and by rounding values <p><u>Dv</u></p> <ul style="list-style-type: none"> explains if their calculations make sense by referring to the constraints.
5-6	<p>Ciii. move between different forms of mathematical representation with some success</p> <p>Di. identify the relevant elements of the authentic real-life situation</p> <p>Dii. select adequate mathematical strategies to model the authentic real-life situation</p> <p>Diii. apply the selected mathematical strategies to reach a valid solution to the authentic real-life situation</p> <p>Div. describe the degree of accuracy of the solution</p> <p>Dv. discuss whether the solution makes sense in the context of the authentic real-life situation.</p>	<p>The student:</p> <p><u>Ciii</u></p> <ul style="list-style-type: none"> demonstrates the ability to move between most of the information provided in the infographic to the scenario <p><u>Di</u></p> <ul style="list-style-type: none"> identifies at least two relevant factors <p><u>Dii</u></p> <ul style="list-style-type: none"> has selected at least one correct mathematical strategy <p><u>Diii</u></p> <ul style="list-style-type: none"> has supporting calculations, at least two fully correct, for the geometrical shapes, characteristics of the fish and sales and profit <p><u>Div</u></p> <ul style="list-style-type: none"> describes the degree of accuracy by considering the averages or by rounding values <p><u>Dv</u></p> <ul style="list-style-type: none"> describes if their calculations make sense by referring to the constraints.
3-4	<p>Di. identify the relevant elements of the authentic real-life situation</p> <p>Dii. select, with some success, adequate mathematical strategies to model the authentic real-life situation</p> <p>Diii. apply mathematical strategies to reach a solution to the authentic real-life situation</p>	<p>The student:</p> <p><u>Di</u></p> <ul style="list-style-type: none"> identifies at least two relevant factors <p><u>Dii</u></p> <ul style="list-style-type: none"> has selected at least one correct mathematical strategy <p><u>Diii</u></p>

	Div. describe whether the solution makes sense in the context of the authentic real-life situation.	<ul style="list-style-type: none"> has supporting calculations, at least one fully correct, for the geometrical shapes, characteristics of the fish and sales and profit <u>Div</u> <ul style="list-style-type: none"> describes if their calculations make sense by referring to the constraints.
1-2	Di. identify some of the elements of the authentic real-life situation Dii. apply mathematical strategies to find a solution to the authentic real-life situation, with limited success .	The student: <u>Di</u> <ul style="list-style-type: none"> identifies at least one relevant factor <u>Dii</u> <ul style="list-style-type: none"> has supporting calculations, at least one fully correct, for one of; geometrical shapes, characteristics of the fish or sales and profit.

MYP 1 – Task D

Level	Level descriptor	Task-specific clarification
7-8	<p>Di. identify the relevant elements of the authentic real-life situation</p> <p>Dii. select adequate mathematical strategies to model the authentic real-life situation</p> <p>Diii. apply the selected mathematical strategies to reach a correct solution to the authentic real-life situation</p> <p>Div. explain the degree of accuracy of the solution</p> <p>Dv. describe correctly whether the solution makes sense in the context of the authentic real-life situation.</p>	<p>The student:</p> <p><u>Di</u></p> <ul style="list-style-type: none"> identifies at least three relevant factors <p><u>Dii</u></p> <ul style="list-style-type: none"> has selected at least two correct mathematical strategies <p><u>Diii</u></p> <ul style="list-style-type: none"> has supporting calculations, that are fully correct, for the geometrical shapes, characteristics of the fish and sales and profit <p><u>Div</u></p> <ul style="list-style-type: none"> explains the degree of accuracy by considering the averages and by rounding values. <p><u>Dv</u></p> <ul style="list-style-type: none"> describes if their calculations make sense by referring to the constraints.
5-6	<p>Di. identify the relevant elements of the authentic real-life situation</p> <p>Dii. select adequate mathematical strategies to model the authentic real-life situation</p> <p>Diii. apply the selected mathematical strategies to reach a valid solution to the authentic real-life situation</p> <p>Div. describe the degree of accuracy of the solution</p> <p>Dv. state correctly whether the solution makes sense in the context of the authentic real-life situation.</p>	<p>The student:</p> <p><u>Di</u></p> <ul style="list-style-type: none"> identifies at least two relevant factors <p><u>Dii</u></p> <ul style="list-style-type: none"> has selected at least two correct mathematical strategies <p><u>Diii</u></p> <ul style="list-style-type: none"> has supporting calculations, at least two fully correct, for the geometrical shapes, characteristics of the fish and sales and profit <p><u>Div</u></p> <ul style="list-style-type: none"> describes the degree of accuracy by considering the averages or by rounding values <p><u>Dv</u></p> <ul style="list-style-type: none"> states if their calculations make sense by referring to the constraints.
3-4	<p>Di. identify the relevant elements of the authentic real-life situation</p> <p>Dii. apply mathematical strategies to reach a solution to the authentic real-life situation</p> <p>Diii. state, but not always correctly, whether the solution makes sense in the context of the authentic real-life situation.</p>	<p>The student:</p> <p><u>Di</u></p> <ul style="list-style-type: none"> identifies at least two relevant factors <p><u>Dii</u></p> <ul style="list-style-type: none"> has supporting calculations, at least one fully correct, for the geometrical shapes, characteristics of the fish and sales and profit <p><u>Diii</u></p> <ul style="list-style-type: none"> states if their calculations make sense by referring to the constraints, with some errors.

1-2	<p>Di. identify some of the elements of the authentic real-life situation</p> <p>Dii. apply mathematical strategies to find a solution to the authentic real-life situation, with limited success.</p>	<p>The student:</p> <p><u>Di</u></p> <ul style="list-style-type: none"> • identifies at least one relevant factor <p><u>Dii</u></p> <ul style="list-style-type: none"> • has supporting calculations, with errors, for one of geometrical shapes, characteristics of the fish or sales and profit.
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Interdisciplinary task

Final interdisciplinary task – MYP 5		
Level	Level descriptor	Task-specific clarification
7-8	<p>Bi. synthesizes disciplinary knowledge to demonstrate consistent, thorough and insightful interdisciplinary understanding</p> <p>Ci. applies communication skills in interdisciplinary learning that is consistently well structured, clear and coherent, using selected forms or media effectively</p> <p>Cii. consistently documents well-chosen sources using a recognized convention</p>	<p>The student:</p> <p><u>Bi</u></p> <ul style="list-style-type: none"> appropriately and correctly combines knowledge from at least two subjects to raise awareness addresses three aspects of the chosen issue presents ideas that are clear and engaging. <p><u>Ci</u></p> <ul style="list-style-type: none"> presents all information and ideas clearly organizes all information and ideas in a coherent and logical manner selects appropriate form(s) of communication for the identified target audiences effectively uses linguistic and/or visual devices to enhance impact on target audiences <p><u>Cii</u></p> <ul style="list-style-type: none"> uses recognized citation for all sources uses relevant and reliable sources.
5-6	<p>Bi. synthesizes disciplinary knowledge to demonstrate consistent, thorough interdisciplinary understanding</p> <p>Ci. applies communication skills in interdisciplinary learning that is generally organized, clear and coherent, beginning to use selected forms or media effectively</p> <p>Cii. documents relevant sources using a recognized convention</p>	<p>The student:</p> <p><u>Bi</u></p> <ul style="list-style-type: none"> appropriately and correctly combines knowledge from at least two subjects to raise awareness addresses three aspects of the chosen issue. <p><u>Ci</u></p> <ul style="list-style-type: none"> presents all information and ideas clearly organizes most information and ideas in a coherent and logical manner selects appropriate form(s) of communication for the identified target audiences uses some linguistic and/or visual devices, demonstrating awareness of how to enhance impact on an audience. <p><u>Cii</u></p> <ul style="list-style-type: none"> uses recognized citation for all sources uses relevant sources.
3-4	<p>Bi. demonstrates disciplinary knowledge to achieve adequate understanding</p> <p>Ci. applies communication skills in interdisciplinary learning with some organization and coherence, recognizing appropriate forms or media</p> <p>Cii. lists sources</p>	<p>The student:</p> <p><u>Bi</u></p> <ul style="list-style-type: none"> appropriately or correctly combines knowledge from at least two subjects to raise awareness addresses two aspects of the chosen issue. <p><u>Ci</u></p> <ul style="list-style-type: none"> organizes some information and ideas in a coherent and logical manner selects appropriate form(s) of communication for the identified target audiences.

		<u>Cii</u> <ul style="list-style-type: none"> • lists sources.
1-2	Bi. identifies few and/or superficial connections between disciplines Ci. applies communication skills in interdisciplinary learning with little structure, clarity or coherence	The student: <u>Bi</u> <ul style="list-style-type: none"> • briefly states some connections between subjects. <u>Ci</u> <ul style="list-style-type: none"> • presents information and ideas but these may be difficult to follow.

Final interdisciplinary task – MYP 3

Level	Level descriptor	Task-specific clarification
7-8	<p>Bi. synthesizes disciplinary knowledge to demonstrate consistent and thorough interdisciplinary understanding</p> <p>Ci. communicates interdisciplinary understanding that is clear and well structured, beginning to use the selected forms or media appropriately</p> <p>Cii. documents relevant sources</p>	<p>The student:</p> <p><u>Bi</u></p> <ul style="list-style-type: none"> appropriately and correctly combines knowledge from at least two subjects to raise awareness addresses three aspects of the chosen issue. <p><u>Ci</u></p> <ul style="list-style-type: none"> presents all information and ideas clearly organizes all information and ideas in a coherent and logical manner selects appropriate form(s) of communication for the identified target audiences uses some linguistic and/or visual devices, demonstrating awareness of how to enhance impact on an audience <p><u>Cii</u></p> <ul style="list-style-type: none"> documents all sources uses relevant sources.
5-6	<p>Bi. synthesizes disciplinary knowledge to demonstrate interdisciplinary understanding</p> <p>Ci. communicates interdisciplinary understanding that is generally well organized and coherent, recognizing appropriate forms or media</p> <p>Cii. identifies relevant sources.</p>	<p>The student:</p> <p><u>Bi</u></p> <ul style="list-style-type: none"> appropriately and correctly combines knowledge from at least two subjects to raise awareness. <p><u>Ci</u></p> <ul style="list-style-type: none"> presents all information and ideas clearly organizes most information and ideas in a coherent and logical manner selects appropriate form(s) of communication for the identified target audiences. <p><u>Cii</u></p> <ul style="list-style-type: none"> lists relevant sources.
3-4	<p>Bi. connects disciplinary knowledge to achieve adequate understanding.</p> <p>Ci. communicates interdisciplinary understanding with some clarity and coherence</p> <p>Cii. identifies sources</p>	<p>The student:</p> <p><u>Bi</u></p> <ul style="list-style-type: none"> appropriately or correctly combines knowledge from at least two subjects to raise awareness. <p><u>Ci</u></p> <ul style="list-style-type: none"> presents some information and ideas clearly organizes some information and ideas in a coherent and logical manner. <p><u>Cii</u></p> <ul style="list-style-type: none"> lists sources.
1-2	<p>Bi. establishes few and/or superficial connections between disciplines</p> <p>Ci. communicates interdisciplinary understanding with little structure, clarity or coherence</p>	<p>The student:</p> <p><u>Bi</u></p> <ul style="list-style-type: none"> connects knowledge from at least two subjects. <p><u>Ci</u></p> <ul style="list-style-type: none"> presents information and ideas but these may be difficult to follow.

Final interdisciplinary task – MYP 1		
Level	Level descriptor	Task-specific clarification
7-8	<p>Bi synthesizes disciplinary knowledge to demonstrate consistent interdisciplinary understanding</p> <p>Ci communicates interdisciplinary understanding with clarity, organization and coherence</p> <p>Cii acknowledges relevant sources</p>	<p>The student:</p> <p><u>Bi</u></p> <ul style="list-style-type: none"> appropriately and correctly combines knowledge from at least two subjects to raise awareness. <p><u>Ci</u></p> <ul style="list-style-type: none"> presents all information and ideas clearly organizes all information and ideas in a coherent and logical manner. <p><u>Cii</u></p> <ul style="list-style-type: none"> lists relevant sources.
5-6	<p>Bi synthesizes disciplinary knowledge to demonstrate interdisciplinary understanding</p> <p>Ci communicates interdisciplinary understanding in a way that is mostly clear</p> <p>Cii identifies sources</p>	<p>The student:</p> <p><u>Bi</u></p> <ul style="list-style-type: none"> appropriately or correctly combines knowledge from at least two subjects to raise awareness. <p><u>Ci</u></p> <ul style="list-style-type: none"> presents most information and ideas clearly <p><u>Cii</u></p> <ul style="list-style-type: none"> lists sources.
3-4	<p>Bi connects disciplinary knowledge to achieve adequate understanding</p> <p>Ci communicates interdisciplinary understanding with some clarity</p>	<p>The student:</p> <p><u>Bi</u></p> <ul style="list-style-type: none"> links knowledge from at least two subjects to raise awareness <p><u>Ci</u></p> <ul style="list-style-type: none"> presents some information or ideas clearly.
1-2	<p>Bi establishes few and/or superficial connections between disciplines</p> <p>Ci communicates interdisciplinary understanding in a limited way</p>	<p>The student:</p> <p><u>Bi</u></p> <ul style="list-style-type: none"> combines knowledge from at least two subjects. <p><u>Ci</u></p> <ul style="list-style-type: none"> conveys little information and/or few ideas.