

Learning engagement 1 part B: Investigating inquiry forum (45') - You will work in pairs assigned by your facilitator to create a chart.

- With your partner choose a content-based lesson that would traditionally be taught in your subject.
 - What does the same lesson look like when it is imagined through the four inquiry models?
 - What ATL skills are called upon at each level of inquiry?
 - What skills do students need to be explicitly taught in order to perform each level of inquiry?
 - What planning strategies must you employ at each level of inquiry?
- Create a chart to demonstrate your thinking. Post your investigation in the **Investigating inquiry part B discussion forum**.
- Explore the work posted by other participants, and provide feedback for one lesson.
- Revise your lesson based on peer feedback.

IB Math: Parabolas - catapult and toy car activity				
Inquiry	Lesson	ATL Skills	Skills that NEED to be taught in order to perform level of inquiry	Planning strategies NEEDED to employ level of inquiry
Confirmation	<p>Students are tasked with hitting a toy car with a ball launched from a projectile. They have to determine where to place the toy car.</p> <p>Students are given the starting parameters:</p> <ul style="list-style-type: none"> - Height of the catapult - Angle the ball is launched at - Speed the ball is launched at - Speed the toy car moves at <p>Students are told the method on how to solve the problem using parabolas and trig.</p>	<p>Communication skills: listening and reading instructions and methodology</p> <p>Higher-order thinking skills: Interpreting and applying the methodology</p>	<p>How to break the initial speed and direction of the projectile into horizontal and vertical components using trigonometry.</p> <p>How to use the quadratic equation to solve for how long the projectile will be in the air.</p> <p>How to use the speed of the toy car to calculate the position it should be placed</p>	<p>Create clear, easy to follow instructions</p> <p>Develop questions to probe students thinking and deepen their understanding of the content</p>
Structured	<p>Students are told what parameters they need, but must figure out how to collect the data to find the parameters themselves.</p>	<p>All of the above, plus:</p> <p>Self-management skills: collect and organize the data</p>	<p>How to use a graphing software to calculate the initial speeds and angles</p>	<p>Plan what materials students will need for the task</p>
Guided	<p>Students have to determine on their own how to complete the task.</p>	<p>All of the above, plus:</p> <p>Self-management skills: managing the time needed to plan and then implement the inquiry</p> <p>Self-management skills: being resilient if success is not achieved on the first try</p> <p>Research skills: students will probably have to do some research to figure out a method</p>	<p>How to develop a methodology to complete the task</p> <p>How to research the math needed to complete the task</p>	<p>Differentiate the assignment for students that need more structure due to learning challenges</p> <p>Create list of possible resources for students to use</p>
Open	<p>Students get to choose their own research question that relates to parabolas. Examples of real-world applications of parabolas include</p>	<p>All of the above, plus:</p> <p>Self-management skills: mindfulness to combat anxiety with open-ended nature of the task</p>	<p>Brainstorming techniques to come up with a research question</p>	<p>Plan for small-groups to provide feedback as students research their topic</p>

Math lesson by Sarah Spitler, 2021. This lesson was inspired by a lesson from my physics teacher, Amanda Powell.
 Spanish lesson by Stacy Whisenhunt-Guerra, 2021

	satellite dishes, projectile motion, fountains, Flappy Bird, etc.			
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Introductory / Ab Initio Spanish Class: Cuisine - Lesson on food in different cultures and regions.

Inquiry	Lesson	ATL Skills	Skills that NEED to be taught in order to perform level of inquiry	Planning strategies NEEDED to employ level of inquiry
Confirmation	Establish meaning of the following phrases with students: come, tiene hambre, (no) me gusta. Students are given pictorial vocabulary prior to instruction and practice. Students create English / Spanish flashcards (physical or electronic) to confirm their understanding of the food vocabulary in the content (pan = bread)	Self-management	Organizing information logically, structuring information correctly Demonstrating persistence and perseverance, practicing focus and concentration, and overcoming distractions	Identify culture and region of focus Create comprehensive list of words and phrases to be taught and assessed
Structured	Read ¡No me gusta! from <i>The Storyteller's Corner</i> . Students are given repetitive structure in lesson and/or reading. Students will write, speak and ask personal like / dislike statements about different foods mimicking the structure observed in context. Hold up each card from the reading and ask, "¿A Sofía le gusta comer ___?" to the class. Then, have students ask/respond to their shoulder partner, "¿A ti te gusta comer ___?"	Communication skills	Active listening - including non-verbal communication Literacy - including reading strategies, using and interpreting a range of content-specific terminology, interpreting meaning through cultural understanding	Identify culture and region of focus Selecting a comprehensible text to address structure and vocabulary to be taught and assessed
Guided	¿Comer para vivir o vivir para comer? (Eat to live or live to eat?) Students will work with a partner to select a Spanish text about food and use prior learning, pictorial clues and context to decode the text and expand their food vocabulary. Students will share their understandings and connections after reading. Students will respond to the question ¿Comer para vivir o vivir para comer? and compare their understandings of the text to their own diet.	Self-management skills Social skills Communication skills Research skills	Organizing information logically, structuring information correctly Demonstrating persistence and perseverance, practicing focus and concentration, and overcoming distractions Working in groups - including delegating and taking responsibility, adapting to roles, resolving group conflicts, demonstrating teamwork Active listening - including non-verbal communication Literacy - including reading strategies, using and interpreting a range of content-specific terminology, interpreting meaning through cultural understanding Accessing information - including researching from a	Providing a list of possible resources for students to use

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			variety of sources, transferring and summarizing information using a range of technologies, identifying primary and secondary sources	
Open	Students will determine the sources in Spanish for their investigation into foods in the, selecting their own region and area of concentration. Students will determine the best method to share their learnings with peers.	<p>Self-management skills</p> <p>Social skills</p> <p>Communication skills</p> <p>Research skills</p> <p>Thinking skills</p>	<p>Organizing information logically, structuring information correctly</p> <p>Demonstrating persistence and perseverance, practicing focus and concentration, and overcoming distractions</p> <p>Working in groups - including delegating and taking responsibility, adapting to roles, resolving group conflicts, demonstrating teamwork</p> <p>Active listening - including non-verbal communication</p> <p>Literacy - including reading strategies, using and interpreting a range of content-specific terminology, interpreting meaning through cultural understanding</p> <p>Accessing information - including researching from a variety of sources, transferring and summarizing information using a range of technologies, identifying primary and secondary sources</p> <p>Inquiring - including questioning and challenging information and arguments</p> <p>Making connections - including using knowledge, understanding and skills across subjects to create products or solutions, applying skills and knowledge in unfamiliar situations</p>	Prior instruction and practice of ATLs employed