

<b>Teacher(s)</b>		<b>Subject group and discipline</b>	Math and Individuals and Societies		
<b>Unit Title</b>	Changing the world one step at a time	<b>Year</b>	9	<b>Unit duration (hrs)</b>	14

<b>Key concept</b>	<b>Related concept(s)</b>	<b>Global context:</b> Individuals and Relationships
Change	Measurement, Processes	<b>Area of exploration:</b> What data tells us through data management.

**Statement of inquiry**

**Working in partnership with others to produce positive change strengthens personal and professional relationships.**

<b>Factual inquiry question(s)</b>	<b>Conceptual inquiry question(s)</b>	<b>Debatable inquiry question(s)</b>
What processes do we follow? What data is needed? How do we collect it? How do we measure it?	How do I present my solution so that it sells itself? How will my presentation best reflect what I am trying to show?	Does it matter? Is this a worthy cause? Will my solution really make things better?

<b>Objectives</b>	<b>Summative assessment</b>
[IB.IAS14.G9_10.C] Communicating [IB.MATHS14.G9_10.C] Communicating [IB.MATHS14.G9_10.D] Applying mathematics in real-life contexts [IB.IAS14.G9_10.A] Knowing and understanding [IB.IAS14.G9_10.B] Investigating	Multi-modal report of College based issue and solution, showing research process. Report will include: Introduction Method Results Analysis Solution Evaluation Conclusion/Recommendation Presentation to College Board through teachers and peers. Class to vote on best proposal from each class to present to Principal for presentation to Board.

Inquiry Cycle	Learning experiences, classroom activities and teaching strategies (Alternate colours indicate lessons)
<p style="text-align: center;"><b>Tuning in (Remember)</b></p>	<p>Use a grouping activity like prime numbers into groups of <math>\frac{3}{4}</math></p> <p>Brainstorm ideas about things working well at the College. Use pair/share so students can introduce themselves to each other.</p> <p>Times of day they enjoy; activities, places.</p> <p>Identify what could make it better.</p> <p>Record ideas on A3 sheets.</p> <p>Pin A3 sheets around classroom and proceed with gallery walk.</p> <p>Select one only and write your code on it. This will then be way groups are formed. These are the final groupings of 2/3 students per group. There can be more than one group working on the same topic.</p> <p>Introduction of global concept, related concepts, SOI, factual, conceptual and debatable questions.</p> <p>These questions are to be on A3 sheets so students can add to them.</p>
<p style="text-align: center;"><b>Finding out (Understand)</b></p>	<p>Produce a related proposal and investigate/evaluate if it is feasible.</p> <p>Create an individual research journal that contains decisions of who does what, records of data, notes and planning ideas.</p> <p>What processes do we need to follow?</p> <p>What do we need to do?</p> <p>What data needs collecting?</p> <p>COLLECT IT.</p> <p>Update research diary.</p>
<p style="text-align: center;"><b>Sorting out (Apply)</b></p>	<p>Create a map using BOLTS and at least 1 each of a, table and a graph, use EXCEL</p>

<b>Drawing conclusion s (Analyse)</b>	<p>What does all this data mean?</p> <p>What is it showing me?</p> <p>Update research diary and revisit original idea to see if there really is a problem.</p>
<b>Going further (Evaluate)</b>	<p>Written analysis of data and deciding whether my information supports the original conjecture.</p> <p>Propose a related solution and investigate/evaluate if it is feasible.</p> <p>Update research diary with personal evaluation of contribution. This is private and not to be shared with group.</p> <p>Produce their group presentation.</p> <p>Produce their group presentation.</p>
<b>Reflecting/ Taking Action (Create)</b>	<p>Present in remaining lessons to teacher and class.</p> <p>Class will then vote on best presentation/idea per class to present to Principal who will then choose two, to present to College Board.</p>

### ACARA Geography - Key Inquiry questions Yrs 8 & 9:

How do environmental and human processes affect the characteristics of places and environments?

How do the interconnections between places, people and environments affect the lives of people?

What are the consequences of changes to places and environments and how can these changes be managed?

What are the causes and consequences of change in places and environments and how can this change be managed?

What are the future implications of changes to places and environments?

Why are interconnections and interdependencies important for the future of places and environments?

**ACARA Geography – Sequence of Content Skills Yrs 8 & 9:** <http://www.acara.edu.au/resources/Geography - Sequence of content.pdf>

### ACARA Mathematics - Sequence of Content Yrs 8 & 9:

Investigate techniques for collecting data, including census, sampling and observation (ACMSP284)

Identify everyday questions and issues involving at least one numerical and at least one categorical variable, and collect data directly and from secondary sources (ACMSP228)