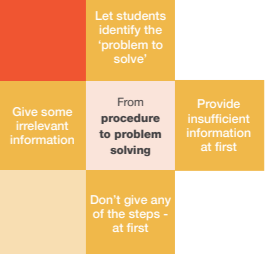


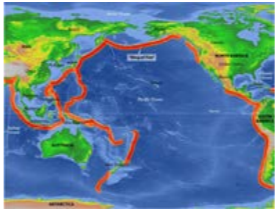




GOAL – Getting the students doing the thinking in Geography/HASS

Transforming tasks strategy: From procedure to problem solving

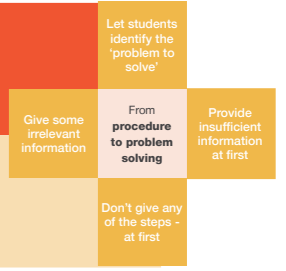



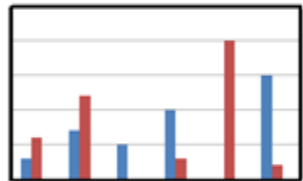
Technique	Before	After	Reflection: Why and how?
<p>Students identify the 'problem to solve'</p> <p>Present a provocation and ask students to determine the problem to solve.</p>	<p>Look on your local council website to find out the strategies that your council takes to address environmental problems such as litter.</p> 	<p>Look at the photo.</p> <ul style="list-style-type: none"> • What can you see? • What does it make you think? • Who could be responsible? • Who might care? How can you find out? • What could you do? 	<p>Why would you... have students speculate about the litter on a beach?</p> <p>So students to actively participate in their learning by asking questions about the things they notice.</p> <p>How does this develop powerful/expert learners?</p> <p>Students exercise curiosity and develop their capacity to think logically and creatively.</p>
<p>Provide insufficient information at first</p> <p>Give a perplexing problem and slowly provide information as needed.</p>	<p>1. Locate the major volcanoes on a map of the world.</p> <p>2. Undertake research on the websites provided in order to answer the question:</p> <p>Why are volcanoes found where they are?</p>	<p>Look at the map.</p> <p>What do you observe? What does it make you wonder?</p> <ul style="list-style-type: none"> • The red line shows the location of the major earthquakes. <p>How can you explain this?</p> <ul style="list-style-type: none"> • Think about the location of tectonic plates. <p>How can you make sense of this information?</p> <p>What conclusions can you draw from this data?</p>  <p>http://bit.ly/1zMf5Ur</p>	<p>Why would you... have students look on a map to try to deduce the relationship between the location of volcanoes, and their cause?</p> <p>So students use reasoning to construct their own questions and theories.</p> <p>How does this develop powerful/expert learners?</p> <p>Students become tenacious and resourceful as they imaginatively dig deeply into possibilities, and identify the information required to solve a problem, or to gain an insight.</p>
<p>Don't give any of the steps - at first</p> <p>Provide prompts and support to scaffold the learning as needed.</p>	<p>Where is this place?</p> <p>Read the information about the recent Australian bushfires. Construct a table that lists the information under these headings:</p> <ul style="list-style-type: none"> • Causes • Effects • Responses. <p>Go to the CFS website and find out the recommendations it has made to reduce the threat or incidence of bushfires.</p>	<p>Where is this place?</p> <p>The CFS in South Australia has a slogan, "It's not that hard to be bushfire ready." Do you think this is true?</p> <p>How can we be bushfire ready?</p> <ul style="list-style-type: none"> • Who would know? • Who needs to know? <p>Discuss whether these recommended actions for 'being bushfire ready', would reduce the threat or incidence of bushfires.</p>	<p>Why would you... have students plan their own research about the reducing the threat or incidence of bushfires?</p> <p>So students think critically and strategically about the steps that are needed to conduct research.</p> <p>How does this develop powerful/expert learners?</p> <p>Students become more resourceful and independent when they 'know what to try, when they don't know what to do'.</p>
<p>Include some irrelevant information</p> <p>Give additional information that is not required to do the task.</p>	<p>Develop a demographic profile of a cooperating class from India.</p> <p>The data you have been given includes:</p> <ul style="list-style-type: none"> • height (broken into bands) • transport to school • favourite subject • type of housing • age (broken into bands). 	<p>Develop a demographic profile of a cooperating class of students from India. The data you have been given includes:</p> <ul style="list-style-type: none"> • height of students (broken into bands) • transport to school • local rainfall • distance from the Equator • favourite subject • type of housing • age (broken into bands) • sunshine hours per annum. 	<p>Why would you... give students additional information that has no relevance to data about the demographic profile of a group of school students in India?</p> <p>So students learn to critique information for its relevance, and not to be distracted by irrelevant information, or to rely on someone else predetermining which information should be used.</p> <p>How does this develop powerful/expert learners?</p> <p>Students think logically and apply their knowledge as they discern between relevant and irrelevant information.</p>



GOAL – Getting the students doing the thinking in Geography

Transforming tasks strategy: From procedure to problem solving



Technique	Before	After	Reflection: Why and how?
<p>Students identify the 'problem to solve'</p> <p>Present a provocation and ask students to determine the problem to solve.</p>	<p>You are involved in a redevelopment of a sporting venue and your role is to ensure that the people who visit the sports centre have adequate transport options available to them.</p> <p>Design a survey with a series of questions that would help you to investigate the demographics of the people who will use the redeveloped sporting venue.</p>	<p>You are involved in the redevelopment of a sports centre. Some people suggested building an underground pedestrian tunnel.</p>  <p>(CC-by-SA - credit: Photo by George Rex.)</p> <p>What do you think of that idea? What questions would you ask? What else might you need to know?</p>	<p>Why would you... have students speculate on whether building a pedestrian tunnel is a good idea? So students learn to actively participate in their learning by asking questions.</p> <p>How does this develop powerful/expert learners? Students exercise curiosity and develop their capacity to think logically and creatively.</p>
<p>Provide insufficient information at first</p> <p>Give a perplexing problem and slowly provide information as needed.</p>	<p>Construct a column graph, to represent your survey data about the time students spend on different out of school activities.</p> <p>Make sure you:</p> <ul style="list-style-type: none"> Give your graph a title that tells what the graph is about. Label both the x and y axes. The x axis tells the scale or frequency, and the y axis identifies the information. Include a legend that describes the meaning of the shading or the colours used in the bars. 	<p>Information 'under'- load!</p> <ol style="list-style-type: none"> What do you think this graph is about? What information might it be representing? If the title was about the time children spend on different out of school activities, what would you think? What's missing? How might you improve this graph? 	<p>Why would you... provide students with an unlabelled graph, and ask them to consider what the graph might be about? So students identify the key elements of a column graph for themselves, and can explain why each is important.</p> <p>How does this develop powerful/expert learners? Students become analytical problem solvers, actively participating in their own learning.</p>
<p>Don't give any of the steps - at first</p> <p>Provide prompts and support to scaffold the learning as needed.</p>	<p>What does the future hold for Australian biomes?</p> <p>Australia has extensive tracts of land used for wheat farming. Choose one example of this for a case study. Investigate the changes that this industry has caused to the environment in that place.</p> <p>Write a report which addresses the following questions:</p> <ul style="list-style-type: none"> Where is the wheat farm? Why is it located here? What was the original biome for the area? How has the area changed? How might the original biome be sustainably managed in the future? 	<p>What does the future hold for Australian biomes?</p> <p>Australia has extensive tracts of land used for wheat farming. Choose one example of this for a case study. Investigate the changes that this industry has caused to the environment in that place. Include an answer to - What does the future hold for Australian biomes? Present your research in a report.</p> <p>The following strategy may help:</p> <ol style="list-style-type: none"> What is the problem about? How is it similar or different from other problems I have solved? What kinds of information and research strategies would be useful? Does my reasoning make sense? Is it fact or opinion? 	<p>Why would you... give students a problem to solve about Australian biomes, and not articulate the steps to take, or clarify which questions they should consider?</p> <p>So students think critically and strategically about the steps that are needed to conduct research.</p> <p>How does this develop powerful/expert learners? Students become more resourceful and independent when they 'know what to try, when they don't know what to do'.</p>
<p>Include some irrelevant information</p> <p>Give additional information that is not required to do the task.</p>	<p>Where are Australia's major mining towns? Represent the major mining towns on a map of Australia or in a tabulated form. Show the importance of the mining industry to these towns by ranking them, then show your ranking visually.</p> <p>You have access to the following data from ABS website:</p> <ul style="list-style-type: none"> number of people employed in the mining industry mine sizes (square kilometres) mine productivity GDP contribution/ annum census night populations. 	<p>Where are Australia's major mining towns? Represent the major mining towns on a map of Australia or in a tabulated form. Show the importance of the mining industry to these towns by ranking them, and then show your ranking visually.</p> <p>You have access to the following data from ABS website:</p> <ul style="list-style-type: none"> number of people employed in the mining industry mine size (square kilometres) mine productivity GDP contribution/annum number of women size of households number of Aboriginal and Torres Strait Islanders proportion owner occupied/rental housing distance from nearest capital city Census night populations. 	<p>Why would you... give students additional information that bears no relevance to the importance of the mining industry to different towns? So students learn to critique information for relevance, and not be distracted by irrelevant information, or rely on someone else predetermining which information should be used.</p> <p>How does this develop powerful/expert learners? Students think logically and apply their knowledge, as they discern the relevant from irrelevant information.</p>