


Level 4 Building Resilience	The Brain and Mindfulness
<p>Year 8 : CN L4 : 2015 : 1</p> 	<p>Reconnecting the Brain, <i>Bronwen Wall</i></p> <p>Dr Melanie Cheung is a neurobiologist, who wants to respect Maori tikanga while working as a scientist. This article explores how she combines traditional Maori knowledge with scientific knowledge.</p> <p>Ebook link</p>
<p>Health & Physical Education goal</p>	<p>Literacy goal</p>
<p>Health: Investigate and describe life style factors that contribute to the well-being of people in New Zealand.</p> <p>Science: Appreciate that science is a way of explaining the world and that science knowledge changes over time.</p>	<p>To form and communicate ideas clearly, drawing on a range of sources.</p> <p>To analyse and synthesise key information from a range of information sources.</p>
<p>Vocabulary: Specialised: biology, cross-section, hereditary, Huntington’s disease, neurobiologist, neurodegenerative, neurons, neuroplasticity, neuroscientist.</p> <p>Interest: ethics, laboratory, pioneer, stimulate,</p> <p>Te Reo: kanohi ki to kanohi, karakia, korero, maramataka, moana-nui-a-Kiwa, roro, tapu, taonga, tikanga, wai, waiata, waka, whakanoa whānau.</p>	
<p>Task purpose : To understand that scientists believe that we can rebuild and change our brains.</p>	

Task 1

1a).**Brainstorm** what you already know about the human brain.

b).**Share** your brainstorm with a partner.

Compare your ideas.

Did you have the same ideas or are they different?

Do you agree with your partner's ideas?

2.a)Now **read**: CN L4 : 2015 : *Reconnecting the Brain* (In the book, "Is that so")

While you're reading about the brain, you may come across new vocabulary. Make sure you use the glossary on the last page of the text to help you understand what you are reading.

b) *What new information have you learnt about the brain?* **Add** this to your original brainstorm using a different colour.

Task 2

Links

Brainstorm tips:

- Keep it short. Spend less than 10 minutes on this activity.
- This task is about tuning in to what you already know. Stay off Google!
- You can do this on paper or digitally.
- If you do use paper, make sure you leave plenty of room because you will revisit your brainstorm later on.

Digital resources you could use:

- Coggle: <https://coggle.it/> (Sign up required) *Coggle is an online brainstorming tool.*
- Google draw
- Write a list in Google docs

Click this link for the [ebook](#) version of the text *Reconnecting the Brain*

Fig 2.

Question	Answer (Supported with evidence from the text)
What did scientists originally think about the brain's ability to grow and change?	Scientists thought_____ because_____
What were the scientists trying to do about Huntington's disease?	

Answer these questions about the text using the chart **Fig 2**.

How did Mike realise that old brains could learn new tricks?	
What is neuroplasticity?	
Name 3 benefits of being able to change or repair your brain. <i>(Use your own ideas to answer this question)</i>	

Task 3

1a) Watch the YouTube clip 'Emotions and the Brain'

Towards the end of the clip, the narrator says "*This is where we can manage our emotions with conscious thinking.*" Some people know conscious thinking as mindfulness.

- *What do you think he means by this?*
- *How does the idea of using conscious thinking link to the scientist's idea of neuroplasticity in the first text?*

YouTube: Emotions and the Brain <https://www.youtube.com/watch?v=xNY0AAUtH3g>

<p>b)Discuss these questions with a partner.</p>	
<p>Purpose: to compare information and form conclusions about how conscious thinking affects our emotions and feelings and present this to others.</p>	
<p>Task 4: 1a)Create a google slide to teach your class about conscious thinking (mindfulness) and how it affects our emotions and our brains.</p> <p>You will need to do some additional research to complete this. In the right hand column are some websites to get you started.</p> <p>To find other web-sites use the search tips in the right hand column.</p> <p>b)Locate the information then decide: <i>Is the information up-to-date? Is it accurate and reliable?</i></p> <p>c)Identify the key information from several of the websites that you have chosen.</p> <p><i>Will this information help me to find out how conscious thinking affects our emotions and our brains? If yes</i></p>	<p>Tips for creating your slide.</p> <ul style="list-style-type: none"> - Keep it interesting. 2 – 3 slides of written information should be enough to get your point across. - Don't overload your slide. Choose key facts only. - <i>Can you make it interactive?</i> Perhaps you could find a relevant YouTube clip for the class to watch. - Or you could create a Kahoot for the end of your presentation to test their learning. (www.kahoot.com is a website where you can create your own interactive quiz). - Keep a bibliography. This is a list of websites that you have gained your information from. <p><i>IT Whiz?</i> Instead of a slide you could use showme to give a video tutorial to share with the class.</p> <p>Websites to get you started:</p> <p>http://mindfulnessforchildren.co.nz/index.php</p> <p>http://mindfulnzschools.nz/</p> <p>https://kidshealth.org/en/kids/brain.html</p> <p>https://www.nytimes.com/guides/well/mindfulness-for-children</p> <p>Web search tips to help you find information for your slide or showme presentation:</p> <ul style="list-style-type: none"> - Use key words. E.g. “brain, emotions, thoughts, mindfulness” - Adding “for kids” to the search terms will help you find easy to understand information. - Check that the information is reliable by cross-checking your information on other websites.

<p>d)Compare the information: <i>What information is similar across the websites?</i></p> <p><i>What conclusions can I draw from this information and from tasks 1-3 to help me create my slide?</i></p> <p><i>How can I apply what I have learned to my everyday life?</i></p>	<p>- Is the information current: Is the website less than five years old?</p>
<p>2.Now go back to your brainstorm from Task 1, add any new ideas you have formed about the brain using a different colour.</p>	<p>Final brainstorm tips:</p> <p>If you have learnt that some of your original ideas are now factually incorrect, cross them out neatly with your new colour. Don't delete them! Science is about challenging and developing ideas, so it's great to keep a record of where your thinking has come from.</p> <p>Just for fun: If you'd like to learn more about the different parts of the brain. Check out this game:</p> <p>Match-a-brain</p>
<p>Review:</p> <p>How effective was I in achieving my literacy goal?</p> <p><i>What did I do well?</i></p> <p><i>What do I still need to work on?</i></p>	<p>Have I formed and communicated my ideas clearly?</p> <p>Have I analysed and synthesised key information from a range of information sources?</p>

<p>How effective was I in achieving my Health & Physical Education learning goal?</p> <p><i>What did I do well?</i></p> <p><i>What do I still need to work on?</i></p>	<p>Can I describe the impact mindfulness can have on my feelings and emotional well-being?</p>
<p>How effective was I in achieving my Science learning goal?</p> <p><i>What did I do well?</i></p> <p><i>What do I still need to work on?</i></p>	<p>Do I understand that what scientists currently believe can change when new knowledge is discovered?</p>