

Neuroplasticity 2- This Week I Learnt

Learning Intention

Students will understand the concept of neuroplasticity and how good strategies, help from others and practice are needed to learn something new.

Australian Curriculum Link

Science: Biology
 Critical and creative thinking capability: Reflecting on thinking and processes

Basic facts

When learning something new, the neurons in the brain fire and wire to create new neural pathways.

The first time a connection is made, is the most difficult. Each time we practise, this connection strengthens until the new skill, knowledge or behaviour becomes automatic.

Vocabulary

Please refer to the ThinkPlus Journey Glossary for definitions of the following vocabulary;

- Neural pathways
- Synapse
- Neuron
- Dendrite
- Axon terminal
- Neurotransmitter
- Neuroplasticity

ThinkPlus Resources

Neuroplasticity 2- This Week I Learnt PPT


Equipment

Pen/pencil per student
 Post it notes
 1 sheet of A4 paper per small group

Outline

This module follows the **Neuroplasticity 2 This Week I Learnt** PowerPoint.

- Write **‘What is neuroplasticity?’** on the board. Ask students to record their definition on a Post-it note and put it on the board below the question. (Some students may not know. Encourage them to guess what it might be. What part of the body could it involve?)
- Read each definition and discuss. List key points as class.
- Watch an example of neuroplasticity in action: Mike Boyd’s video ***This week I learnt to throw cards’***
- Discuss what skills Mike had before he started practising. What did he achieve? How did he achieve his end goal?
- Small group activity: List, in order, what strategies Mike used to learn the new skill.
- Class activity: Collate all strategies Mike used in order and record on board in a table (see below) As each strategy is recorded, teacher or student draws and describes what is happening in the brain at that stage in the neuroplasticity section.

Strategies	Neuroplasticity
1	
2	
3	
4	
5	
6	

- Watch video - ***How We Learn- Synapses and Neural Pathway*** and discuss.

Reflection

Does this relate to how you learn?
 Are there steps you could add to help in your learning?

Ideas

Students participate in their own ‘This Week I Learnt’ experience. There are some great ideas using simple equipment and a shorter timeframe on the Minute to Win website or similar. Students then share the strategies they used to master the skill.