

Lesson Topic : Genomics; The Tree of Life	
Year Group : Year 7 and 8	
Learning Outcome	To identify the evolution of the octopus; to discuss how it has evolved and adapted to survive
Links with the New Zealand Curriculum 	Science: Explore how the groups of living things we have in the world have changed over long periods of time and appreciate that some living things in New Zealand are quite different from living things in other areas of the world.
Key Competencies 	Thinking The students will be making connections between the traits of the octopus and their prior lessons regarding evolution/ the tree of life, adaptation and the food chain. Using Language, Symbols and Texts The students will synthesise information from a range of sources to explore different aspects of the octopus. Managing Self The learners will conduct a mini inquiry, where they must ask/ answer questions and select sources independently.
Prior knowledge 	The students have been engaging in Genomics lessons (created by Dr. Janie Van Hees) since the start of term. They have covered life processes, evolution/ the tree of life, adaptation and the food chain. At this point in the unit, the students are looking at specific animals (zebrafish and octopus) to discuss where they fit in the tree of life and the traits that they have developed.
Lesson Sequence	In our first session, we started by watching a video about the octopus, before we deconstructed the videos transcript in small groups, to unpack the concepts and vocabulary. In this session, we started by watching a short video to remind us of our learning and to generate engagement and student questioning.



Once the students had a basic knowledge about the octopus, they developed questions and wonderings that they would like to investigate further. They then visited the site page and researched the octopus, before creating a DLO to share their learning.

Session Outline

1. Watch the short video to refresh students memories about octopus and to cover some of the more complex octopus traits. Explain the task and introduce the site page.
2. Discuss the questions the students have about octopus and what they are interested to learn more about. Then the students will use these wonderings to guide their reading and the information they are gathering.
3. Create a DLO to share this learning.

Student Activity

Teacher Activity

Learn:

Watch the video and discuss wonderings about octopus traits

Ask and answer questions using the sources on the multi-modal site page

Discuss previous lesson and what we know about the octopus.

Launch the video and pause to recap complex features - e.g. camouflage

Introduce the multimodal site page and the task - investigate aspects of the octopus you are interested in

Create:

A DLO that illustrates learning about the octopus

Roam the class and discuss the students questions and findings with them

Share:

Share your DLO on your blog

Resources

[Site](#)

Reflection and Analysis

Lesson Content - The students were really engaged in this discussion. The videos and transcript lessons provided them with the prior knowledge required to complete the task

	Lesson Pacing - It was a challenge to complete the create activity in the allotted time - if I had this class for a further session that week, I would allow a little more time for the inquiry, as a few of the students changed from creating something large or artistic to using slides under the time pressure. Lesson Delivery - I still did a fair bit of talking throughout the lesson - at the start I could have got the students to share more of their knowledge, Student Understanding- The students all came away with an understanding of some of the octopus traits, but every child looked into its ability to camouflage and its brain/ memory, which were the traits Dr. Van Hees had highlighted.
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