Resources for Year 7 curriculum content with integrated Indigenous knowledge for topics such as reef and coral

Coral Watch Indigenous Engagement Project

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Learning Objective:

Classification helps organise the diverse group of organisms (ACSSU111)- investigating classification systems used by Aboriginal and Torres Strait Islander Peoples and how they differ with respect to approach and purpose from those used by contemporary science.

Background Information:

Classification is vital in differentiating between groups of organisms and can be done in a number of ways. The Linnaean system was brought about in the 1700s and classifies on the basis of taxonomy namely; Domain, Kingdom, Phylum, Class, Order, Family, Genus and Species. However, First Nations peoples more commonly classify organisms on criteria such as use, age and stage of life.

Corals are a keystone species within our oceans. These organisms either directly or indirectly provide a building block for all other marine life. There are many different types of corals which can be classified into sub classes- Hexacorallia and Octocorallia within the main class, Anthozoa.

Curriculum Content:

Classification can happen in many forms and is used in many faucets of life. Writing, animals, colours and much more are classified into groups to make understanding easier. Different cultures use and understand classification differently due to perspective. For example, under Indigenous knowledge, turtles, barramundi and dugongs are grouped together as organisms because of their aquatic nature and presence of fins. However, in Western knowledge, turtles, barramundi and dugongs are grouped separately as reptile, fish and mammal due to different classification systems.

To better understand the links between Western and Indigenous knowledge within the scientific topic, classification, visit the Venn diagram on the next page.

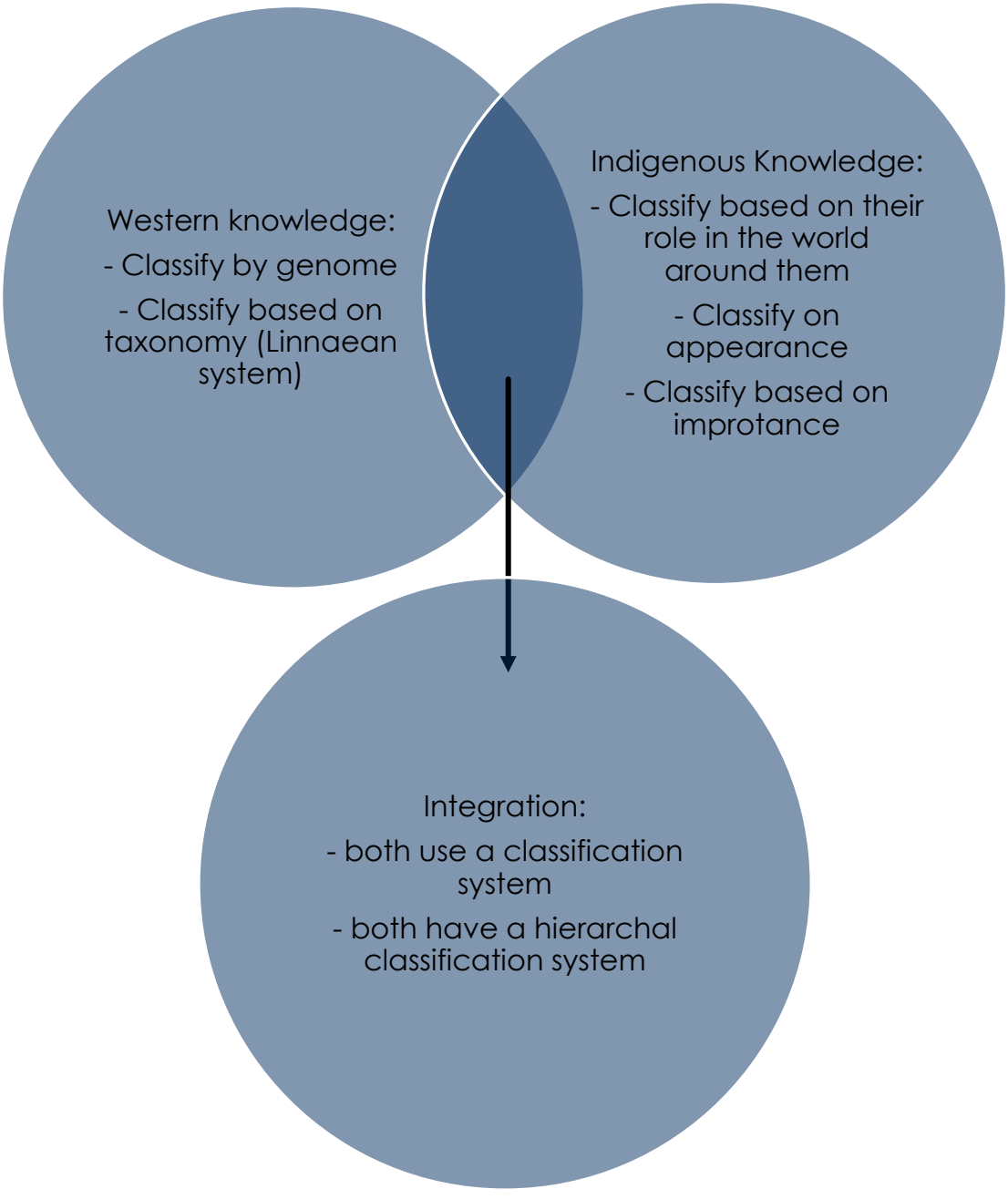
The topic of classification both in Western and Indigenous knowledge is incredibly interesting. To dive further into first nations understanding, here are some articles:

https://nit.com.au/21-12-2023/9136/traditional-owners-guide-new-pacific-coral-reef-monitoring-system

https://reefknowledgesystem.gbrmpa.gov.au/land-and-sea-country/research-and-monitoring

https://nalderun.net.au/wp-content/uploads/2018/08/Classification-an-Aboriginal-Perspective.pdf

Integration:



Activity:

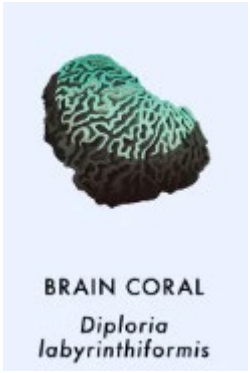
Classify the corals by name- which are a part of the same genus by cutting out the names and gluing matching corals together! (Western knowledge)

Acropora efflorescenshyacinthus	Favites bennettae
Porites australiensis	Acropora palmata
Favites abdita	Porites cylindrica

Correct answer: three groups of 2, each containing corals with the same first name (genus)

Classify the corals by hard and soft by cutting them out and grouping them! (Indigenous knowledge)

Answer: Hard corals (staghorn coral, brain coral, mushroom coral), Soft corals (sea whip coral, organ pipe coral, sun coral)



Bibliography

1. *Adoptez un corail*. (n.d.). Coral Guardian. https://www.coralguardian.org/en/what-are-coral-reefs/?utm_source=google&utm_medium=grants&utm_campaign=Ekads_CORALGUARDIAN-Corail-EN&gad_source=1&gclid=Cj0KCQiAi_G5BhDXARIsAN5SX7o4Bjg_GOh3vCnPu0ZhC_m9HMeVscaGRjrWg8k6Zu7-FJk3T5aEKNMaArPjEALw_wcB
2. *Classification system*. (n.d.). Science Learning Hub. https://www.sciencelearn.org.nz/resources/1438-classification-system
3. (n.d.). Indigenous Australia, Culture, People & Resources | Australians Together. https://australianstogether.org.au/assets/Curriculum-Resources/Y7-Science-ACSSU111-112-ACSHE119-223-121-ACSIS125-ClassificationFoodWebs-Student-Handout-v2.pdf