

Activities for students: Year 7 Science Food Webs - Indigenous Perspective

1. Research online and write down whether the objects are biotic, abiotic and its purpose for the ecosystem and traditional uses.

Objects	Biotic/ Abiotic	First Nations Peoples' Purposes/Uses	Significance to the Marine Ecosystem
Rocks			
Fish			
Coral			
Temperature			
Shellfish			

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Great Barrier Reef Food Chain

2a) Draw a food chain showing the following animals: lionfish, clownfish, shark, and algae

Name the ecosystem, insert arrows draw and label the organism, and label the type of consumer (trophic level).

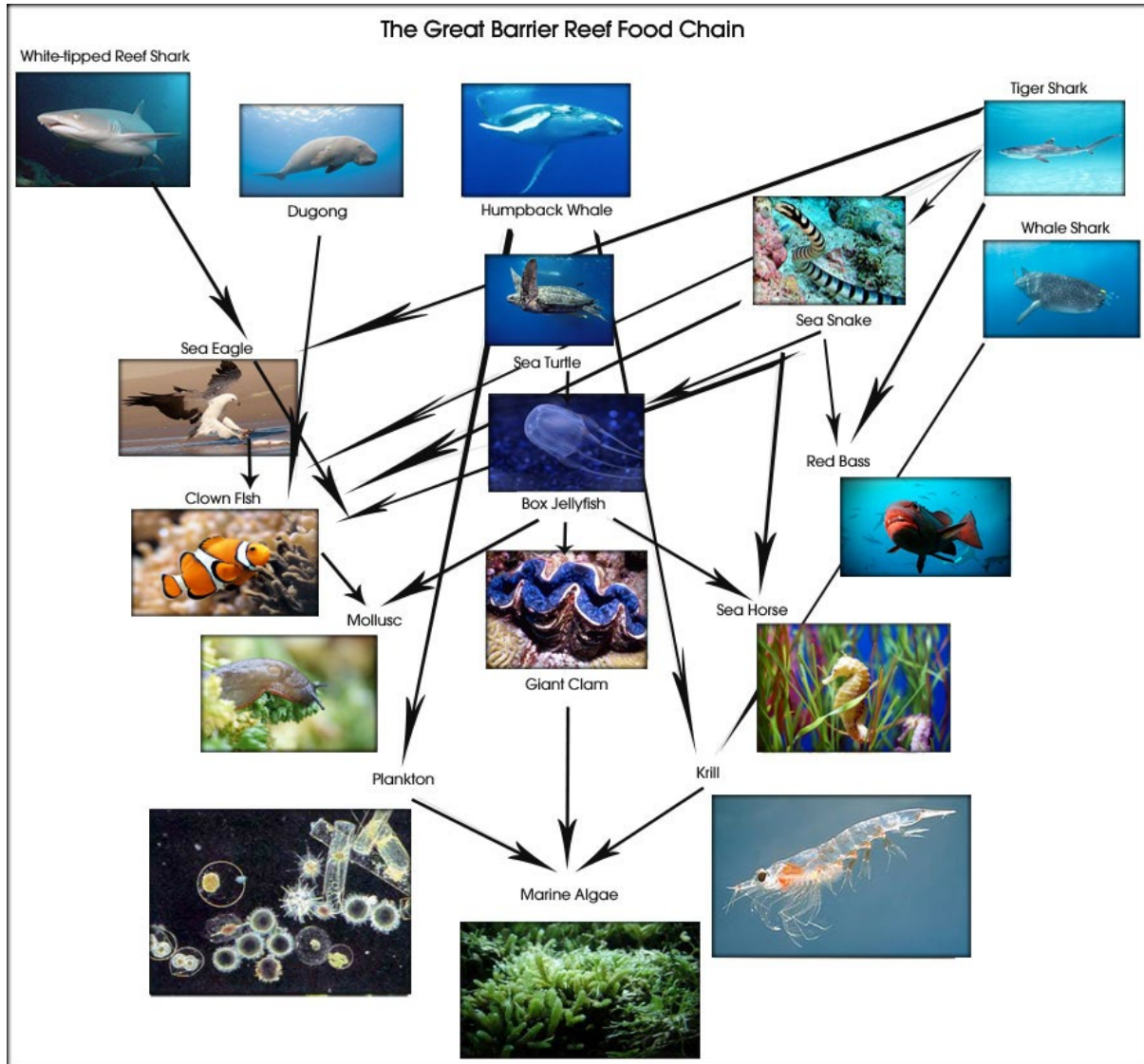
b) Place the sun into the food chain

c) Place decomposers (marine worm) into the food chain

d) Explain what would happen if sharks were removed from this food chain?

e) Explain what would happen if algae were removed from this food chain?

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Source: Great Barrier Reef. (n.d.). [Great Barrier Reef Food Web].
<https://greatbarrierreef.com.au/information/great-barrier-reef-food-web/>

3a) Looking at the above food web, draw two food chains (containing four animals).

b) What would happen to the food web if people ate all the clams/shellfish?

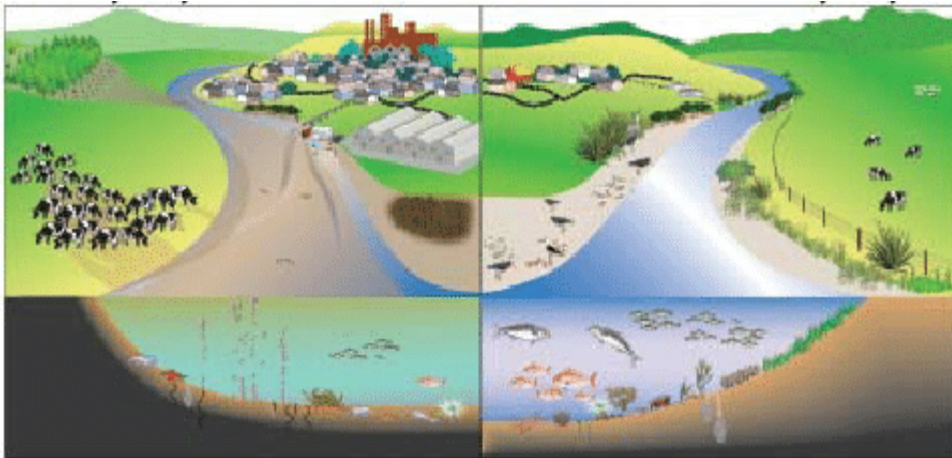
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d) What strategies do First Nations Australians use to maintain clam/shellfish numbers in the ecosystem?

e) What would happen if the natural habitat (coral reefs) of clownfish is destroyed by the crown of thorns starfish?

f) What traditional management strategies could be employed to reduce the impacts of the invasive species?

4. Your family likes to eat fish, so they went to their usual fishing spot however they noticed all the fish were missing. Looking at the images below label the healthy and unhealthy country and circle what is different. Describe how these factors effect ecosystems and explain why there is no fish and how you can encourage fish to come back by looking at the healthy country.



Source: Thrush, S. F., Townsend, M., Hewitt, J. E., & Davies, K. K. (2014). The many uses and values of estuarine ecosystems. In J. Dymond (Ed.), *Ecosystem Services in New Zealand – Condition and Trends* (pp. 226-237). Manaaki Whenua Press.

https://www.researchgate.net/publication/281526181_The_many_uses_and_values_of_estuarine_ecosystems#pf7

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