Investigation theme: Marine Turtles	Expected duration
Marine turtles are endangered species, are featured in many conservation campaigns hence offer a good subject for study.	10 weeks

Previous investigation	Resources for present investigation	Monitoring/Assessment
Write here what biology/nature based studies you may have done previously.	Websites & Links provided in-text Software/Apps: Libre Office (free download), Google Earth Books: Search your local library's online catalogue and chose books which suit your child Citizen Science: Eye On the Reef, Clean Up Australia Day, Cut The Glow <a href="https://parks.des.qld.gov.au/parks/mon-repos/cut-the-glow.html">https://parks.des.qld.gov.au/parks/mon-repos/cut-the-glow.html</a> Videos: The Red Turtle (Studio Ghibli), The Blue Planet: A Natural History of the Oceans (BBC) & Turtle: The Incredible Journey	Select which you will use and make changes in the Investigation Activities box. Wildlife Logs Factual poster/lapbook/report Turtle myth storybook/graphic novel Film review Notes from discussions Save turtle action documentation Threat spreadsheet

# Investigation activities, knowledge and skills

**Build Ecosystem Knowledge:** \* Go for weekly trips to the ocean, exploring the rockpools, reefs, beaches. If snorkelling, log citizen science surveys after each snorkel with the app: *Eye on the Reef* <a href="http://www.gbrmpa.gov.au/our-work/eye-on-the-reef">http://www.gbrmpa.gov.au/our-work/eye-on-the-reef</a>

\* Watch *The Blue Planet: A Natural History of the Oceans* (BBC) throughout our unit to provide foundational oceanic knowledge. There are 8 DVDs and they are generally available from libraries.

**Experiences**: Visit Mon Repos Turtle Centre in Bundaberg to see turtles laying or hatching <a href="https://parks.des.qld.gov.au/parks/mon-repos/turtle-centre.html">https://parks.des.qld.gov.au/parks/mon-repos/turtle-centre.html</a> We may also join the annual homeschool family Turtle Camp .

Research Turtles: Make a poster/lap book/research report about turtles including information from the sub-tasks.

- **General Info:** Seeturtles.org have a lot of good lesson plans <a href="https://www.seeturtles.org/lesson-plans">https://seeturtles.org/lesson-plans</a> <a href="https://static1.squarespace.com/static/5369465be4b0507a1fd05af0/t/5612a543e4b0021af67a602e/1444062531694/Turtle+Talks.pdf">https://static1.squarespace.com/static/5369465be4b0507a1fd05af0/t/5612a543e4b0021af67a602e/1444062531694/Turtle+Talks.pdf</a>
- Species: Find photos of turtles in the media and identify them using the online key from Sea Turtles Conservancy

  https://conserveturtles.org/information-about-sea-turtles-species-identification-key/https://seaworld.org/animals/all-about/sea-turtles/

  Foods: Research the different sea turtles and list their diets. Based on this knowledge figure our which species are more likely to survive marine pollution. Pick a turtle and draw a diagram of a turtle food chain or food web. <a href="https://www.seeturtles.org/sea-turtle-diet/">https://www.seeturtles.org/sea-turtle-diet/</a>
- Life cycle: Find out about marine turtle breeding, lifespan and migrations.
- Survivor chart: Make a piegraph of how many turtle eggs laid actually grow into adult turtles.
- Map Turtle Journeys: Using *The Incredible Journey*, <a href="https://youtu.be/LNGgb8rWasM">https://youtu.be/LNGgb8rWasM</a> map the path of the particular turtle they followed around the ocean. (video sound is dodgy but good quality video is available from iTunes for \$20) <a href="https://www.printableworldmap.net/">https://www.printableworldmap.net/</a>
  Also look at the marine turtle tracking based at Mon Repos <a href="https://environment.des.qld.gov.au/wildlife/animals/discovering-wildlife/turtle-watching/turtle-tracking">https://environment.des.qld.gov.au/wildlife/animals/discovering-wildlife/turtle-watching/turtle-tracking</a> Tracking in parts of USA <a href="https://www.fws.gov/northflorida/SeaTurtles/seaturtle-info.htm">https://www.fws.gov/northflorida/SeaTurtles/seaturtle-info.htm</a>

Turtle Mythology & Symbolism: Make our own turtle myth in the form of a children's picture book/graphic novel. What the turtle symbolises will be embodied in the story and have accompanying art works on each page.

- Explore art & read/watch a variety of traditional stories from different cultures about turtles and identify how cultures relate to turtles and what they symbolise. A variety of cultural mythologies are on Wiki <a href="https://en.wikipedia.org/wiki/Cultural depictions">https://en.wikipedia.org/wiki/Cultural depictions of turtles</a>
  - Samples of Australian Aboriginal Resources
    - Animal templates https://artyfactory.com/aboriginal-art/aboriginal-art-images/aboriginal-art-images.pdf
    - Aboriginal Dreaming: <a href="https://bundaberg.kanopy.com/video/hawkesbeak-turtle-qld-0">https://bundaberg.kanopy.com/video/hawkesbeak-turtle-qld-0</a> (From Kanopy; The Dreaming series <a href="https://bundaberg.kanopy.com/video/dreaming-series-4-4">https://bundaberg.kanopy.com/video/dreaming-series-4-4</a>)
    - Welcome to Country <a href="https://www.welcometocountry.org/aboriginal-dreamtime-stories/">https://www.welcometocountry.org/aboriginal-dreamtime-stories/</a>
    - Kullillart <a href="https://www.kullillaart.com.au/dreamtime-stories/Wayamba-the-Turtle">https://www.kullillaart.com.au/dreamtime-stories/Wayamba-the-Turtle</a>
    - <a href="https://japingkaaboriginalart.com/collections/aboriginal-art-turtle/">https://japingkaaboriginalart.com/collections/aboriginal-art-turtle/</a>
    - <a href="https://www.didjshop.com/stories/turtle.html">https://www.didjshop.com/stories/turtle.html</a>
- Watch the modern fable *The Red Turtle* from Studi Ghibli and discuss the plot, symbolism and implication and write a plot summary/film review.

On Beama <a href="https://beamafilm.com/watch/the-red-turtle">https://beamafilm.com/watch/the-red-turtle</a> & Kanopy <a href="https://bundaberg.kanopy.com/video/red-turtle">https://bundaberg.kanopy.com/video/red-turtle</a>

- Supporting material Production & Plot <a href="https://en.wikipedia.org/wiki/The Red Turtle">https://en.wikipedia.org/wiki/The Red Turtle</a>
- □ Interview with the Producer <a href="https://cinemaaxis.com/2017/01/23/interview-michael-dudok-de-wit-talks-the-red-turtle/">https://cinemaaxis.com/2017/01/23/interview-michael-dudok-de-wit-talks-the-red-turtle/</a>
- Public impressions <a href="https://www.reddit.com/r/TrueFilm/comments/5tfpox/the\_red\_turtle\_what\_is\_your\_reading\_spoilers/">https://www.reddit.com/r/TrueFilm/comments/5tfpox/the\_red\_turtle\_what\_is\_your\_reading\_spoilers/</a>
- □ Film Review <a href="https://www.theguardian.com/film/2017/may/28/the-red-turtle-review-studio-ghibli-masterpiece">https://www.theguardian.com/film/2017/may/28/the-red-turtle-review-studio-ghibli-masterpiece</a>
- Ready-made study material from Teachers-Pay-Teachers <a href="https://www.teacherspayteachers.com/Product/The-Red-Turtle-Movie-Guide-3437341">https://www.teacherspayteachers.com/Product/The-Red-Turtle-Movie-Guide-3437341</a>

Help Save the Turtles: Document your research & how you have taken action. We will start with this video and identify the obvious threat and discuss how we would feel if a company started drilling in our back yard. <a href="https://www.aardman.com/work/turtle-journey/">https://www.aardman.com/work/turtle-journey/</a> Document this journey with photos, notes emails, advertising samples etc...

- See the big picture. Make a spreadsheet of each turtle threat (direct or indirect). Include: Threat, why it happens, how it can be stopped, which organisations are actively working on these threats <a href="https://www.seeturtles.org/sea-turtles-threats">https://www.seeturtles.org/sea-turtles-threats</a> <a href="https://www.seeturtles.org/lesson-plans">https://www.seeturtles.org/lesson-plans</a>
- Decide how we want to help and use this to decide how our action can change to assist turtles and what activity we will engage in directly.(eg change your own habits, clean up a beach, volunteer for a turtle organisation, organise a Clean up Australia Day for homeschooling group, write to politicians and councillors (or meeting with them!) to improves specific things to help turtles such as halting a development, write to companies whose activities impact on turtles & persuade others to do so)
- **Do it!** Photograph, journal, blog and gather evidence of how you saved turtles.
- Turtle conservation: There is plenty of turtle conservation happening worldwide.... Amakaar, The Turtle People, are fighting sand mining which

threatens their homes, lives and the endangered Ridley turtle <a href="https://bundaberg.kanopy.com/video/aamakaar-theturtle-people">https://bundaberg.kanopy.com/video/aamakaar-theturtle-people</a>

- https://bundaberg.kanopy.com/video/turtles-saziley
- View a turtle conservation success story https://www.youtube.com/watch?v=nBTggT-07Hs
- Sea Turtle rescue https://bundaberg.kanopy.com/video/curiosity-quest-goes-green-sea-turtle-rescue
- https://seaworld.org/animals/all-about/rescue-and-rehab/
- https://conserveturtles.org/
- https://www.noaa.gov/education/resource-collections/marine-life/sea-turtles

Other Excellent Resources to support English, maths & science <a href="https://seaworld.com/educational-resources/sea-turtles/">https://seaworld.com/educational-resources/sea-turtles/</a> Bundaberg Library also has a turtle themed educator kit focused on maths & science : https://bundaberg.spydus.com/cgi-bin/spydus.exe/ENQ/WPAC/BIBENQ?SETLVL=&BRN=354665

#### **Books to Read**

#### Children

Turtle Foundation: I'll Follow the Moon, by Stephanie Lisa Tara

The Smallest Turtle by Linley Dodd

The Voyage of Turtle Rex by Kurt Cyrus

# **Young Adults**

The Back of the Turtle by Thomas King

Dreaming in Turtle: A Journey Through the Passion, Profit, and Peril of Our Most Coveted Prehistoric Creatures by Peter Laufer

## Future investigation activities

The skills learned can be transferred to future biology studies.

### Notes from the author...

Content: It is an anonymised collation of a number of turtle programs I have written so if you plan to use this document, please read everything and edit it down to what will suit your child. I DO NOT recommend you do everything – just use what is useful. This plan will work with all grades and can be made more complex for senior highschool students. Most of the resources are free.

Homeschoolers Family Turtle Camp: We plan to run this every year in turtle season – feel free to join us. <a href="https://tamarakelly.wixsite.com/turtlecamp">https://tamarakelly.wixsite.com/turtlecamp</a>

Technical: This was originally produced using Libre Office so my exported MS office version might have odd formatting. Have a look at the PDF if there are pagination issues. Please let me know if links need updating.



Creative Commons: This document is free from <u>Tamara Kelly</u> for you to copy, distribute and modify but you are not permitted to not use it for commercial gain.