



Marine Science

Key skills developed in this work:

- Independent learning and research
- Fish and coral identification
- Interpretation of scientific data

Research work:

Coral Reefs – what are corals? How do they form? How do coral atolls form?

Mangroves – where do you find them? What special adaptations to their environment do they have? Why are they important? How are humans impacting them?

Kelp forests – where do you find them? Why are they important? What organisms do they support?
Hydrothermal vents – what are they? Where do you find them? How do they form? What life lives around them?

Tides – what causes them? What factors affect the tidal range of a coastal? What is a spring & neap tide?

El Nino – what is it? What causes it? What effect does it have on weather patterns? How does it impact marine ecosystems?

Tropical Cyclones – How do they form? Where do they form? What impacts do they on coastlines?

Monsoons – what are they? What causes them? Why are the positive and negative impacts?

Website links:

<https://www.who.edu/oceanus/>

<https://marinebio.org/>

<https://www.aims.gov.au/>

<http://marinesciencetoday.com/>

Appropriate additional reading:

The above links provide online journals and articles on recent research.

Tasks to complete:

Watch the following CCMI Live Lessons:

Episode 1: <https://www.youtube.com/watch?v=Fik505SnAPw&feature=youtu.be&t=266>

Episode 2: <https://www.youtube.com/watch?v=Ggb8Khqieh4>

Episode 3: <https://www.youtube.com/watch?v=D2NHiohukKI>

There are also links to worksheets & resources in the notes sections.

Familiarise yourself with commonly sighted coral & fish in the Cayman Islands using CCMI's quizlets: <https://quizlet.com/subject/ccmi-coral-and-fish-ID/>

Watch the following documentaries:

- Blue Planet 1 & 2
- Chasing Coral
- Blackfish
- A Plastic Ocean
- Mission Blue

Do some beach cleans!

Go snorkelling and practise your fish and coral ID skills

Watch some Earthwatch webinars: <https://earthwatch.org/science-matters-webinar-series>

Other:

If you are not a SCUBA diver, consider completing your PADI Open Water course. The online section can be done before you do the 'in water' course: <https://www.padi.com/padi-elearning>

If you are already a certified SCUBA diver, consider do another course, e.g. your Advanced OW, or get in touch with Ecodivers and enquire about becoming certified in Coral Restoration so that you can help with their coral nursery program: <http://www.caymanecodivers.com/cayman-coral-nursery-program/>