



Classroom Introductory Activities – Secondary Schools

All schools are welcome to participate in the Hauraki Gulf Monitoring Project. These activities will help develop background understanding about the local environment and assist with planning a field trip to the shoreline to do a Marine Metre Squared survey.

Activity #1: Introduction to the Hauraki Gulf

The Hauraki Gulf is an extremely special place which is called home by thousands of species. Below is a video by the young ocean explorers which is a great introduction to the area!

[The Incredible Hauraki Gulf](#)

#2: Introduction to Mm2

Marine metre squared is a tool to examine what is living on a shore of any type, be it muddy, sandy or rocky. This can then be used as a tool to see how the species that live on a shore change over time. The [Mm2 Website](#) stores all of the mm2 data entered and this allows us to compare data over time and between locations. To enter data for the Hauraki Gulf Monitoring Project you will need to have a registered login, it is easiest if you (the teacher) have one login that all the students use.

When you make your login please email the New Zealand Marine Study Director Sally Carson at sally.carson@otago.ac.nz so that your registration can be approved. On the MM2 website there are resources which can help introduce your class to the idea of the project. Some notable ones are linked below:

[Northern Rocky Shore Guide](#)

[Northern Sandy/Muddy Shore Guide](#)

[Seashore videos](#)

Activity #3: Understanding the importance of the Hauraki Gulf / Tikapa Moana / Te Moanauni-ā-Toi

Many of us have a connection to the Hauraki Gulf. How do you use the Hauraki Gulf? Why is it important to you? In 2-5 minutes, create a mind map of all the ways in which the Hauraki Gulf influences the lives of Aucklanders. Some things to think about could be:

- Food – do you eat seafood from the Gulf?
- Play – how do you use the Gulf for recreation?
- Jobs – what industries use the Gulf?
- Tourism – what attracts people to the area?
- Marine creatures – what types of animals / plants live in/around the Hauraki Gulf?



Activity #4: Who lives in the Gulf?

Understanding which animals/plants are living in the Gulf will tell us how healthy the environment is. Make a list of marine life you expect to find during our shore survey.

Next, you can grow through your species list and start to identify them in the following categories:

- Endemic (only found in New Zealand)
- Native (naturally found in New Zealand but also found in other regions)
- Invasive (introduced into New Zealand from other regions)

Looking at the list of creatures you have come up with, what might these animals/plants need to survive?

In 2020, the Hauraki Gulf Marine Park marked its 20-year anniversary! However, the 'State of the Gulf' report highlighted a number of concerns... There have been large decreases in populations of fish, shellfish and other kai moana as well as birdlife over the past 20 years.

We need to better manage and look after OUR Hauraki Gulf and you all have a role to play! One way we can do that is by gathering further information about the different plants and animals (biodiversity) living in the Gulf. Learning about the biodiversity and measuring how populations changes over time – is like a health check for the Gulf. How does human activity affect the health of the Gulf? What might be some of the issues that results from human activity?

Have a read through the ['State of the Gulf' report](#) and note down some of the main findings (such as what the top issues are affecting the Hauraki Gulf). What do you think are the top five most pressing issues?

Resources to use:

- To find the full report (as well as the condensed version) go to this link here: <https://gulffjournal.org.nz/state-of-the-gulf/>
- There were also multiple articles written about the report in the media such as
 - o [RNZ -Report Paints Grim Picture of Hauraki Gulf Marine Park](#)
 - o [Newshub - Pretty Embarrassing: The Poor State of the Hauraki Gulf](#)
 - o [NZ Herald - State of the Hauraki Gulf: Crayfish in peril, snapper just hanging in there](#)
- To help you get familiar with the idea of marine pests, watch this short video from the Ministry of Primary Industries [Help 'kina' fight marine pests](#).
- You can also find out more information about marine pests on the [Marine Biosecurity Porthole](#) and on the [Marine Life Database](#) to help you complete these activities.



Activity #5: Planning your expedition to the shore

We have gone through a lot of background knowledge covering the Hauraki Gulf and some of the issues it faces. Now it's up to you, as citizen scientists, to plan out your investigation to the shore later in the year (using the attached document 'HGMP Planning Template', ideally print as A3).

First you need a research question – one of the main questions we want to focus on is on the impact and spread of marine pests in the Hauraki Gulf. You may also have additional questions – what else do you want to find out from your trip/s to the shore? What is your motivation for going?

Then you need to think about how you are going to answer the question – planning of your study. When should we go to the shore? Where should we go? What equipment will we need? What information will we collect? Who can help us? Who might be interested in what you are doing?

NEXT STEP: Mm2 survey on your local seashore. Go to www.mm2.net.nz for further direction and resources.