

MINI MĀUI'S

New Zealand
Maritime
Museum

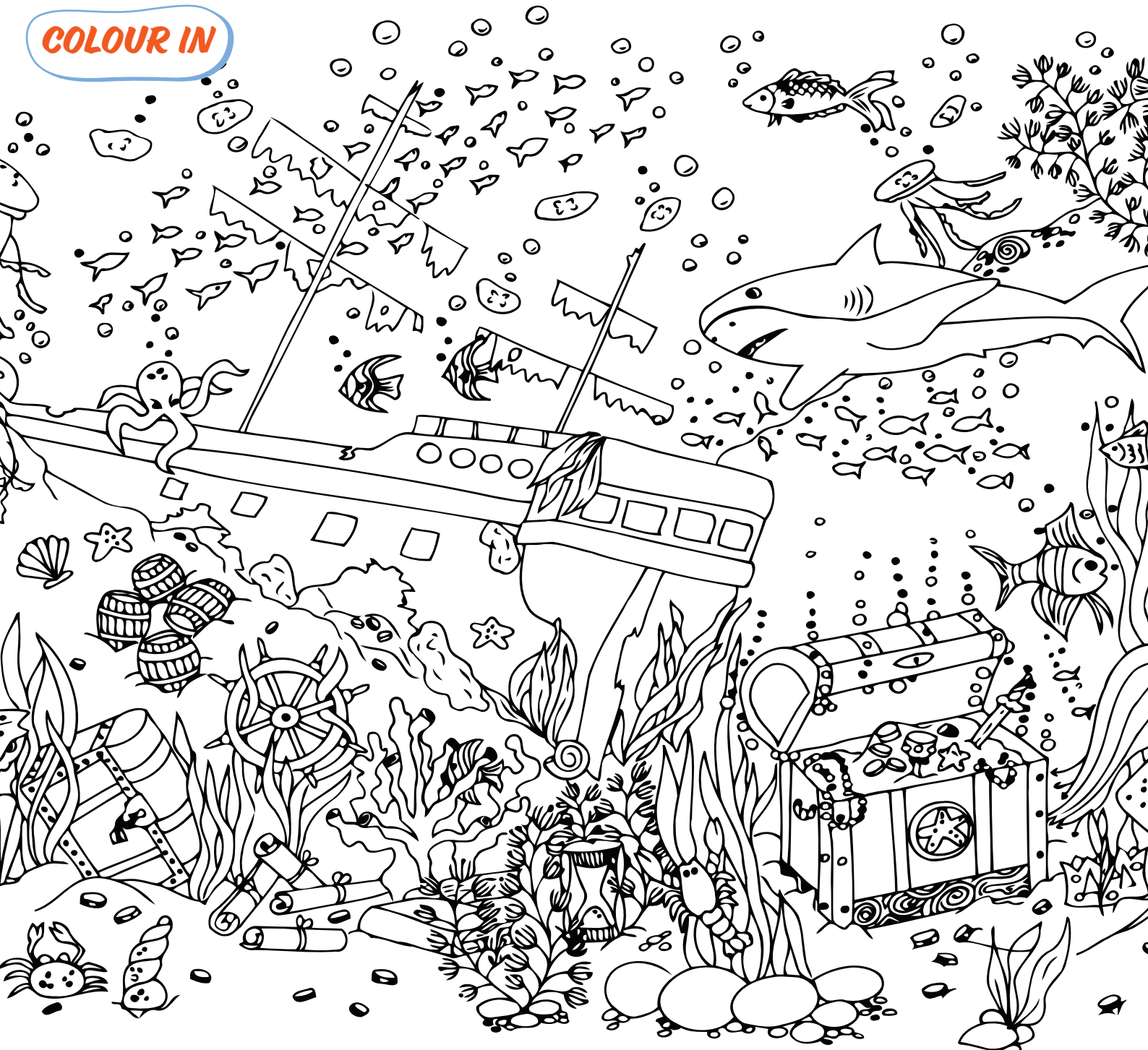
APRIL 2020

ACTIVITY PACK



Kia ora! I'm Marina, a Māui dolphin.
Thanks for joining the Mini Māui's Club at the
Maritime Museum! I can't wait to learn more about
the stories of the sea with all the fun activities
in this pack. Let's go!

COLOUR IN



CURIOUS COLLECTION

WHAT CAN WE SEE IN THE MUSEUM'S CURIOUS COLLECTION?



On many of my vast journeys exploring te moana (the ocean) I have met lots of people that dive deep into the sea to explore shipwrecks or to check on marine animals. When I was swimming just offshore in the Bay of Plenty, I met Dr. James, the epic underwater ocean explorer. Her job is an underwater archaeologist, which means she often dives underwater to explore shipwrecks and other submerged sites. She loves discovering shipwrecks as they show a preserved point in history when the shipwreck happened. There are over 2,500 shipwrecks in Aotearoa New Zealand's waters, with only around 200 that have been accurately located. Dr. James is determined to find the rest!

THE MV RENA SHIPWRECK

When I last stopped in at the Maritime Museum, I asked the Education team if they had anything in their collection from shipwrecks. They showed me some special objects that were found from the MV RENA 2011 shipwreck, the largest ship ever to be wrecked in New Zealand waters. This shipwreck was devastating because the cargo ship was carrying 1368 containers of hazardous materials, as well as thousands of tonnes of fuel.

A week after the grounding, this wreck was named New Zealand's worst maritime environmental disaster because of the massive oil spill into rich wildlife and fishing waters. As of 2014, 77% of the initial containers have been salvaged and nearly all the fuels and oils have been removed.

Let's explore the objects below that were recovered and donated to the New Zealand Maritime Museum from the MV RENA shipwreck. These items were found in a storage unit in Tauranga where the Swedish salvage company had stored the recovered items.



This is a lamp from the wreck, it would have been used either as a light to signal to other ships or to help crew on board see in the dark.

The lamp had to go through a desalination process. That means it was cleaned with a special mixture of salts to remove the minerals that built up from being underwater. This process helps to conserve the lamp by stopping further erosion.



This is an aluminum ingot from Tiwai Point (Bluff Harbour) in the South Island. An ingot is a piece of metal, in this instance aluminium, that has been moulded into a shape that is easy to store and transport until it can be worked into a finished product. The Maritime Museum has two ingots from the MV RENA shipwreck and they would have likely been in one of the ships containers, to be sent around the country for further processing.



Dr. James told me of a great ship called DARING that was lost in the sands on Auckland's Muriwai beach for 153 years. It is one of New Zealand's greatest maritime archaeological finds! Read the epic tale of the DARING discovery...



DARING appearing in the sand, Muriwai Beach, 2018



Diggers used to excavate DARING, 2018

RESCUING THE DARING

DARING'S HISTORY:

DARING was a schooner ship that carried large amounts of goods for trade around New Zealand's North Island between 1863 - 1865 (almost 160 years ago!). These goods ranged from materials like wood and timber to such items as pickles, oats and sardines. DARING was a large ship that could carry around 40 - 50 tons of cargo - that's about the same weight as 7 elephants!

DARING'S DEMISE:

On the 17th February 1865, DARING set out on a journey from Taranaki to Auckland with a cargo of grass-seed. Unfortunately, the Captain made a mistake and ended up too far north, close to Muriwai Beach instead of the Manukau Heads. He didn't know the area and didn't have any charts to help him navigate so he decided to safely beach the ship - which meant sailing the boat up on to the sand. He hoped he could re-launch the boat without damage but after trying to get DARING back into the water for over two weeks they had to abandon the ship and return to Auckland.

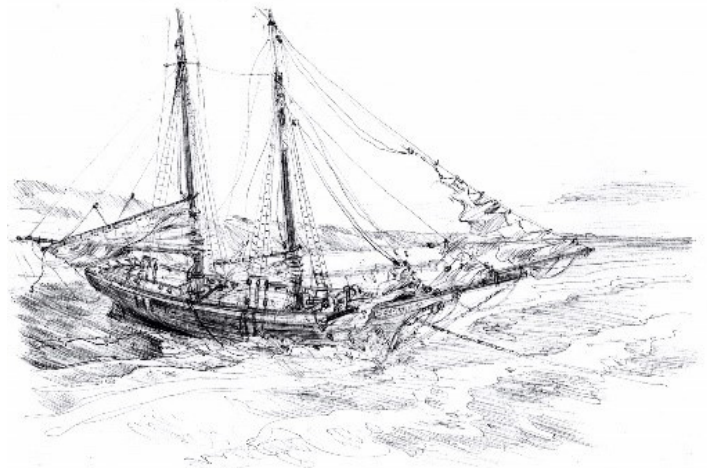
Over time, DARING was buried under the sand dunes where the boat remained covered until it was rediscovered in May 2018, a whopping 153 years later!

DARING DISCOVERIES:

Uncovering DARING was a great find for New Zealand. It is one of the last vessels of its time that has been discovered in such good condition. DARING can now be used by archaeologists to show the history of Aotearoa New Zealand's boat building and coastal shipping industry.

During the dig to uncover the vessel, archaeologists discovered some of the grass-seed cargo that was being transported in 1865. They also found clothing, shaving equipment, smoking pipes and belts that all belonged to the crew. All these items tell us a story of the people that were on board and what life was like for a mariner in the 1800s.

It took two weeks for a team of archaeologists, volunteers and firefighters, plus five excavators, a bulldozer and a big



Artist Steve Horsley's illustration of what it would have looked like bringing the DARING ashore



Artist Steve Horsley's painting of what he imagines DARING would have looked like at sea

truck to lift and transport the DARING from Muriwai Beach to Hobsonville Point, where she is now. A plan is being made for her conservation.



All of these under water discoveries and sciences made me want to see what else has been uncovered from te moana (the ocean)! Palaeontology is the study of fossils. Many palaeontologists, people who study fossils, have discovered fossils that used to live in the sea millions of years ago. Read below to find out more!

WHAT IS A FOSSIL?

Fossils are the remains of animals and plants that lived a very long time ago. Fossils are often bones, shells, leaves and seeds which were buried in mud or sand and slowly turned into stone over a very long time (about 10,000 years!).

Fossils are often found underwater in sedimentary rocks like limestone, sandstone and shale. The constant movement of the sea can wash fossils from cliffs and deposit them on the shore.



THIS IS AN AMMONITE

Ammonites are a type of marine mollusc called Cephalopods, which lived only in the sea. Squid and octopus also belong to this group. Ammonites are very common fossils from the Mesozoic era (252 to 66 million years ago).

Have a look at the difference between the white, rough ammonite and the one that has been cut and polished to show the crystal filled chambers.

THIS IS A FOSSILIZED SHARK TOOTH

Sharks have been around for over 300 million years. Their skeletons are made of cartilage, which is soft and rarely fossilized, but their teeth are very durable which means there are many fossilised shark teeth.



THIS IS A TRILOBITE

These are common fossils found in rocks of the Paleozoic age (541 to 251 million years ago!). They looked a lot like woodlice but they only lived in the sea. Most were quite small with the smallest recorded at 1mm, although some grew to almost a metre in length. They all died out over 250 million years ago.

GIVE IT A GO – FOSSIL COOKIES AT HOME

BAKES APPROX. 16 COOKIES



WHAT YOU NEED:

Large mixing bowl, measuring cup, tablespoon, electric beater/mixer, oven tray, baking paper, oven, cooling rack, Object that you want to turn into a fossil e.g. a shell, a small waterproof animal toy

INGREDIENTS:

- 250g butter softened
- 1/2 cup sugar
- 1 teaspoon vanilla essence
- 1 egg
- 3 cups plain baking flour

INSTRUCTIONS:

- 1 Turn oven on to 190°C (170°C fan-forced)
- 2 Using the mixer, beat the butter, sugar and vanilla essence together in a bowl until light and fluffy
- 3 Add egg and beat well
- 4 Sift flour into creamed mixture until well-mixed, forming a dough
- 5 Using a tablespoon to measure, roll into round balls and place on an oven tray lined with baking paper – make sure they are far apart from each other
- 6 Flatten dough with the back of the spoon
- 7 Clean your object with hot and soapy water, dry well
- 8 Press the object lightly into the cookie dough. For best results, refrigerate for 30 minutes.
- 9 Bake for 12-15 minutes or until pale golden
- 10 Remove from oven, leave to cool on tray for 5 minutes. Transfer to cooling rack until cooled completely
- 11 Optional: decorate your imprint with coloured icing

*Enjoy your Fossil Cookies with your whānau (family)!
Share your cookies online and add #NZMMfossilcookies*

DIVE INTO SOME MORE FUN ACTIVITIES...

CROSS WORD

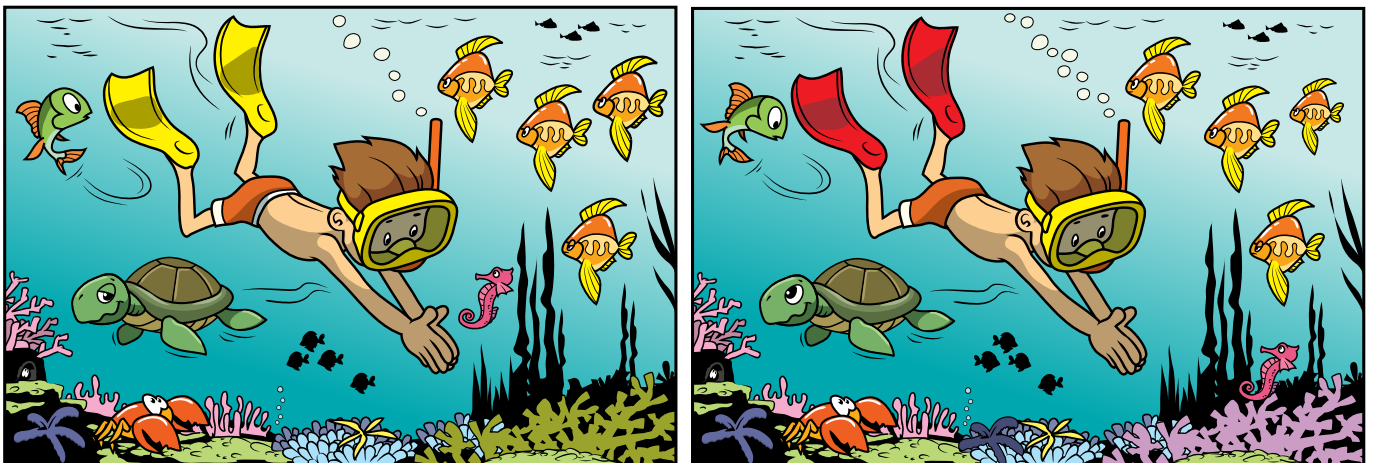
You need to know lots of different sea animals when you're a marine biologist. Can you complete this sea animal cross word?

Sea Animals

1. Jellyfish 2. Globefish 3. Crab
4. Shrimp 5. Starfish 6. Fish 7. Octopus
8. Shark 9. Whale 10. Seahorse

SPOT THE DIFFERENCE

Marine biologists need to dive into the oceans and keep their eyes open to spot different sea creatures. Can you spot the difference between these two underwater images? There are 10 differences to find.



The answers for this spot the difference challenge can be found on our website.

MARINA'S MIND MAZE

KUPU (WORD) GRID



Find the Kupu (words)

Find and circle all the kupu* (words) that are hidden in the grid. The kupu may be hidden in any direction.

*Kupu means words in te reo Māori. Te reo Māori is the first language of Aotearoa New Zealand.

Kupu (words) to find:

- | | |
|------------|-------------|
| 1. MOANA | 4. CONSERVE |
| 2. FIND | 5. TROWEL |
| 3. PICKAXE | 6. HISTORY |

DID YOU KNOW?

'Moana' is te reo Māori for sea or ocean. The word for 'find', 'discover' or 'detect' in te reo Māori is 'kite', pronounced kee-teh.



A trowel is a small tool that is commonly used by an archaeologist on excavation sites to scrape away soil in very fine layers so that artefacts aren't damaged.



A pickaxe is a handheld tool that is used to loosen hard, dense soil for easier removal of artefacts.

Conservation techniques like desalination are used on any objects found in a dig to make sure they are looked after and do not disintegrate in a different environment.

It is an archaeologist's job to uncover history - to see how humans have lived over time.

FUN FACTS

Around 70% of the Earth's surface is covered by oceans.

Archaeologists explore the world, including our oceans, to unearth artefacts and find clues about the past.

Excavation dig sites are places that archaeologists dig up to find and study what have been left by humans and animals.

Some artefacts that are found underwater are conserved by being put into chemical baths. The chemicals replace the old water and support cells of the wood so they keep their form and do not erode.

Archaeologists look for the different tools, clothes, art and stories that humans have made throughout time in these excavation sites.

KUPU (WORD) (UN)SCRAMBLE

The kupu (words) below got all mixed up by the winds (the common word for winds in te reo Māori is hau). Help Marina/Marama the māui unscramble the kupu by putting the letters back in the right order.

- IGD _____
- RIEDBU _____
- PHIS RWEKC _____
- EEXPLRO _____
- ESATRURE _____
- SILSOF _____
- CODSIVRE _____



Answer Key
Dig
Buried
Ship Wreck
Explore
Treasure
Fossil
Discover



Head on over to our website for more kids' activities made especially for you. There will be downloadable colouring sheets, activity sheets and other resources available!

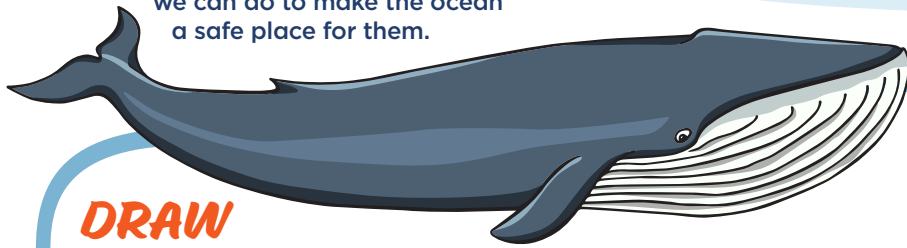
maritimemuseum.co.nz/mini-māuis

WHAT YOU CAN SEE SEA SEA!

There is so much to see in the deep depths of the sea - sharks, whales, turtles and so much more!

A marine biologist is someone who studies the ocean and everything in it. They dive deep in the ocean to observe sea creatures, learning what they do and why they do it. They also study their habitats and their ocean environment to see what we can do to make the ocean a safe place for them.

My favourite sea creature is the Blue Whale, the largest animal to have lived on earth. I have met Antarctic Blue Whales here in Aotearoa New Zealand. Blue Whales are incredible swimmers and are capable of diving nearly 500 metres deep at one time - that's about 5 rugby fields! What's your favourite sea creature, can you draw it in the frame below?



DRAW