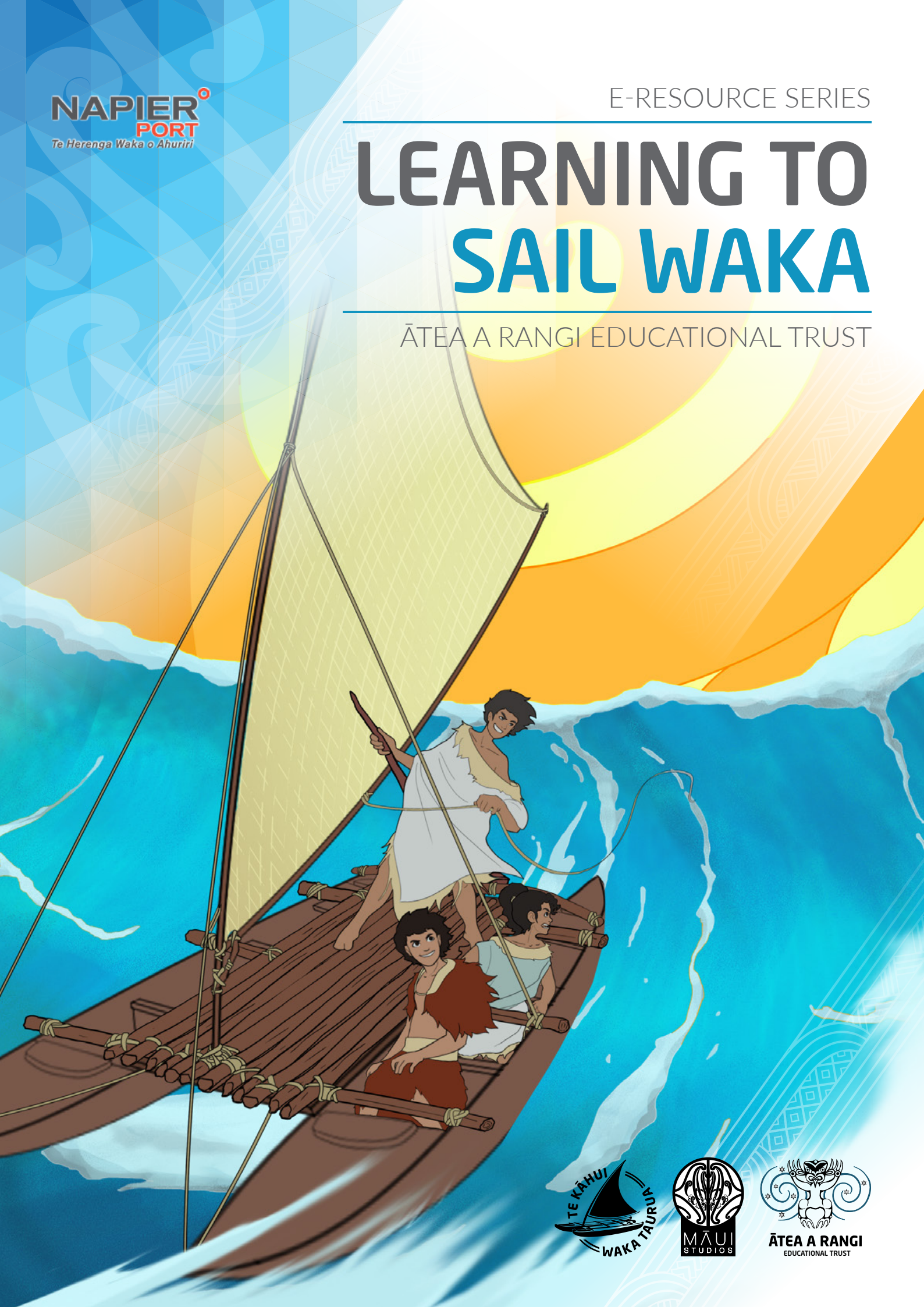


LEARNING TO SAIL WAKA

ĀTEA A RANGI EDUCATIONAL TRUST



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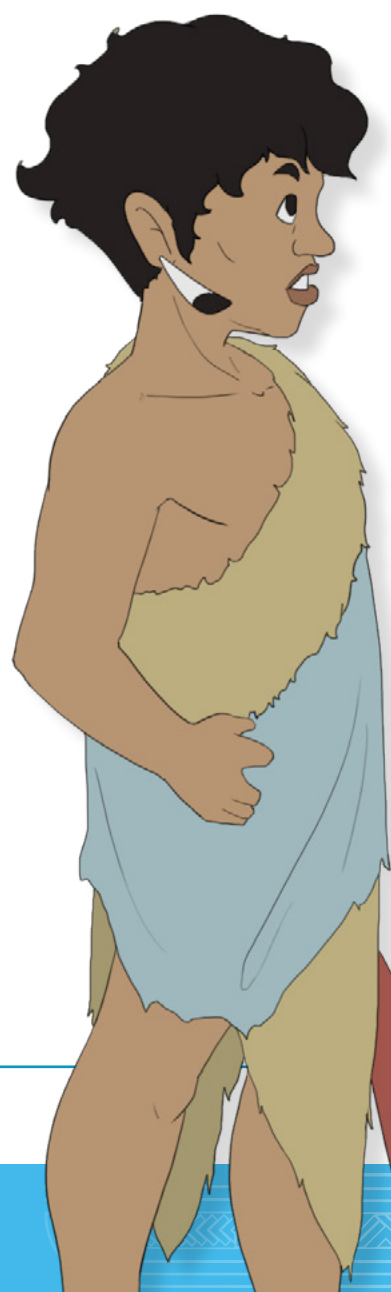
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Ngā mihi ki:
Māui Studios for the design mahi on this resource.
Napier Port for the sponsorship of this resource
Gary Dierkings for the original design of waka hull
David Trubridge who helped design and assist with the build of waka taurua
To all those people who have helped the Ātea a Rangi Educational Trust

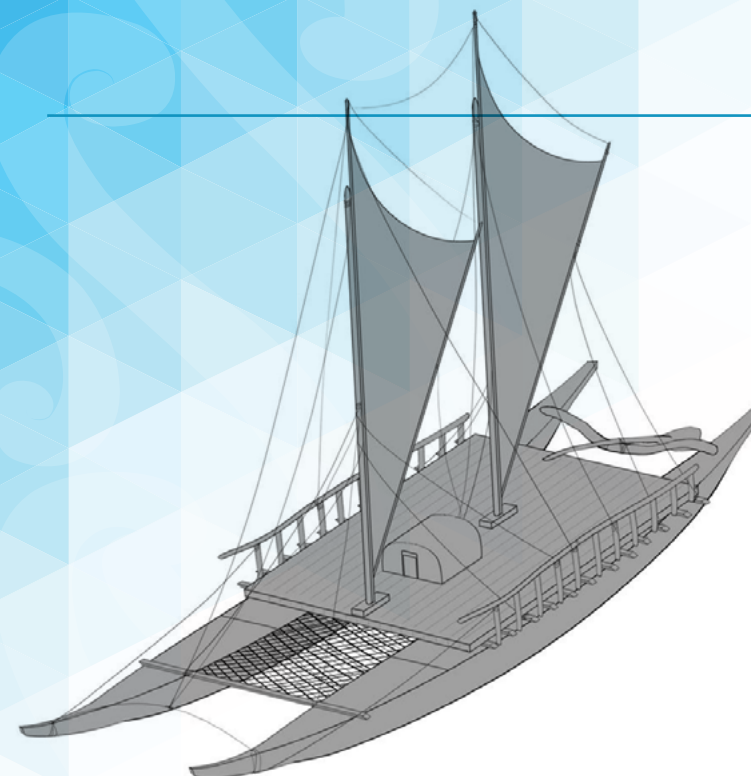
EXERCISE 1

WHICH WAKA?

Waka come in many shapes and sizes. Some are made for travelling on the oceans for months, others are for taking short trips across rivers and lakes. Look at these Five types of waka on page 5 and write which one you think is good for these tasks, you can have more than one waka for each task.

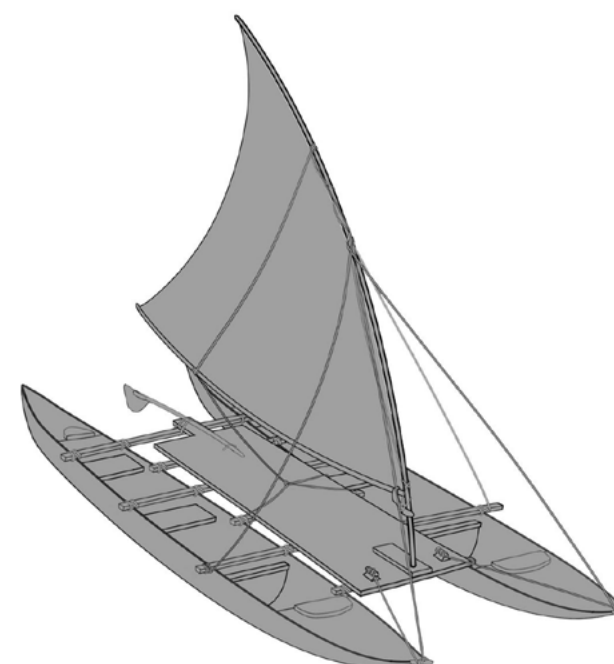


1. Carrying a big group of warriors for war
2. Moving fast over long distances on the ocean
3. Carrying people and goods across harbours
4. Fishing
5. Staying stable on waves
6. Carrying warriors who died in battle
7. Taking small groups of people up rivers
8. Can sleep, eat and live on



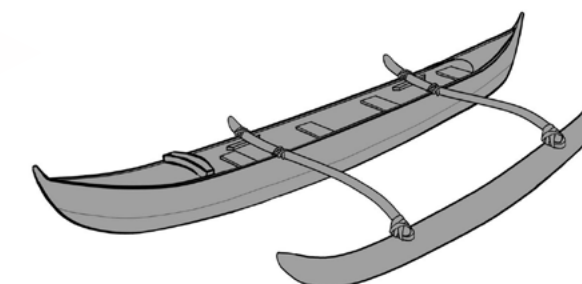
Waka Hourua

10-30 meters long / 10 - 20 people
2 hulls and 1 or 2 sails



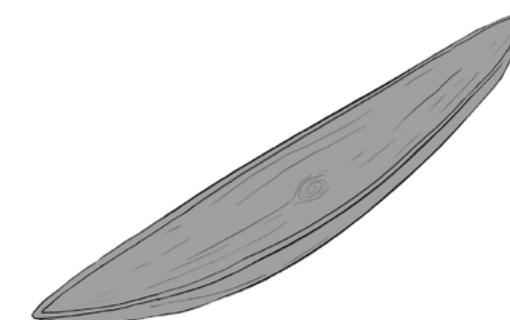
Waka Taurua

5 meters long / 2- 6 people
double hull and single sail



Waka Ama

4-10 meters long / 1- 6 people
Single hull, has usually one (sometimes two) outriggers for balance



Waka Tiwai / Tētē

5-15 meters long / 2 -12 people
Single hull, made from carved out log



Waka Taua

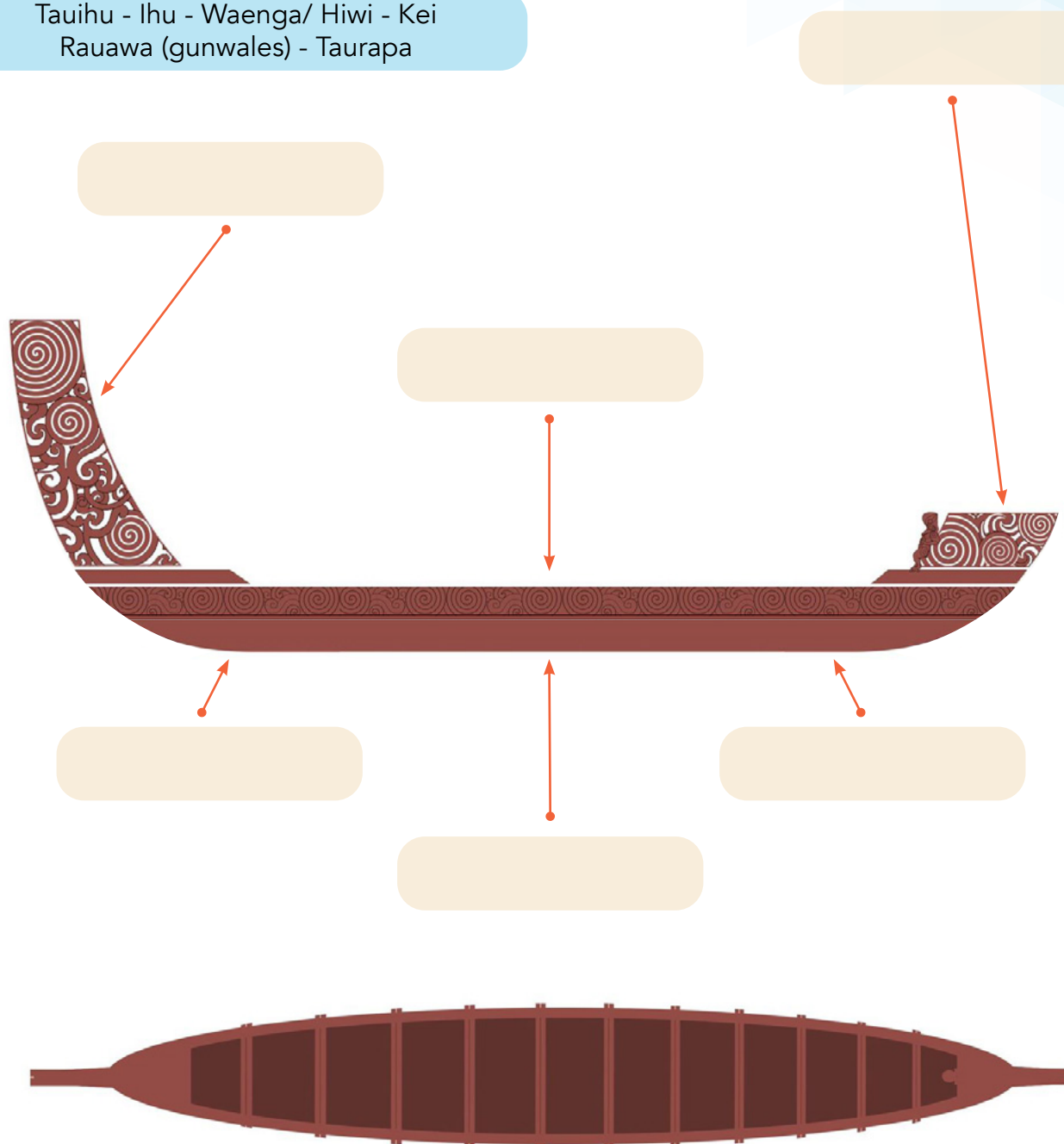
10-30 meters long / 10 - 80 people
1 hull, made from 3 sections, has a carved tauihu and taurapa

EXERCISE 2

PARTS OF A WAKA

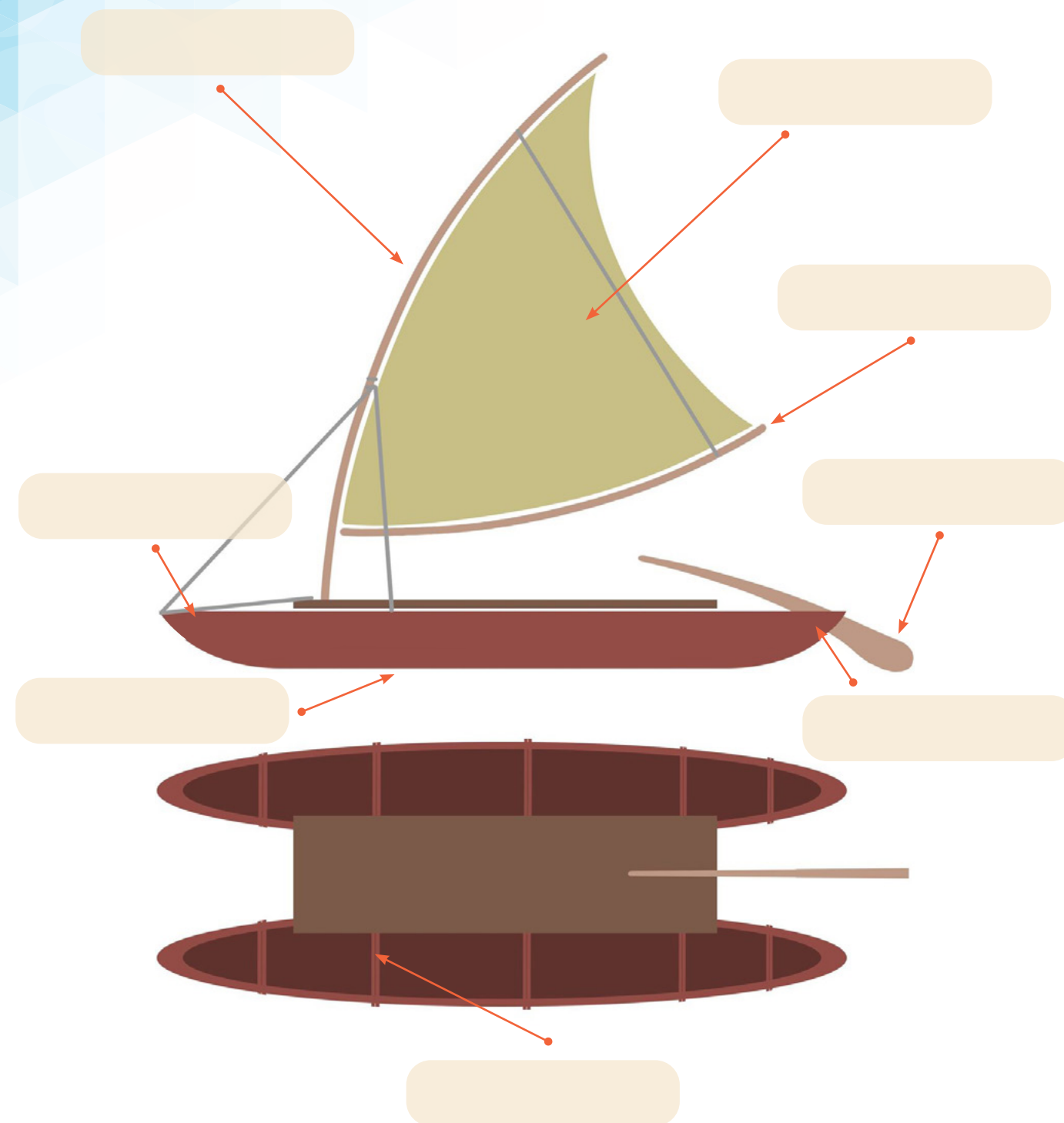
1) Name the different parts of the Waka Taurua from the blue box:

Tauihu - Ihu - Waenga/ Hiwi - Kei
Rauawa (gunwales) - Taurapa



2) Below is the image of a Waka Taurua, name the different parts of the Waka Taurua from the blue box:

Ihu - Kei - Tiratū - Rā - Huapae
Takere - Hoe Urungi - Kīato





EXERCISE 3

WHAT IS NEEDED FOR A WAKA TRIP?

Depending on which waka you are going in, and where you are going, the stores and equipment you need to take might differ. You might also need people with specialised skills to make sure you arrive safely.

Name some of the stores or equipment and specialist people you might need on board the following types of waka in this day and age.

Waka Hourua

- The voyage could take up to 4-6 weeks
- Food can fit in the hulls, in the whare and put in nets
- What Safety Equipment would you need?
- How will you find your way?

Waka Taurua

- Going on a trip for 1-2 hours
- What Safety Equipment would you need?

Why are Waka Hourua stable and balanced, and less likely to capsize?



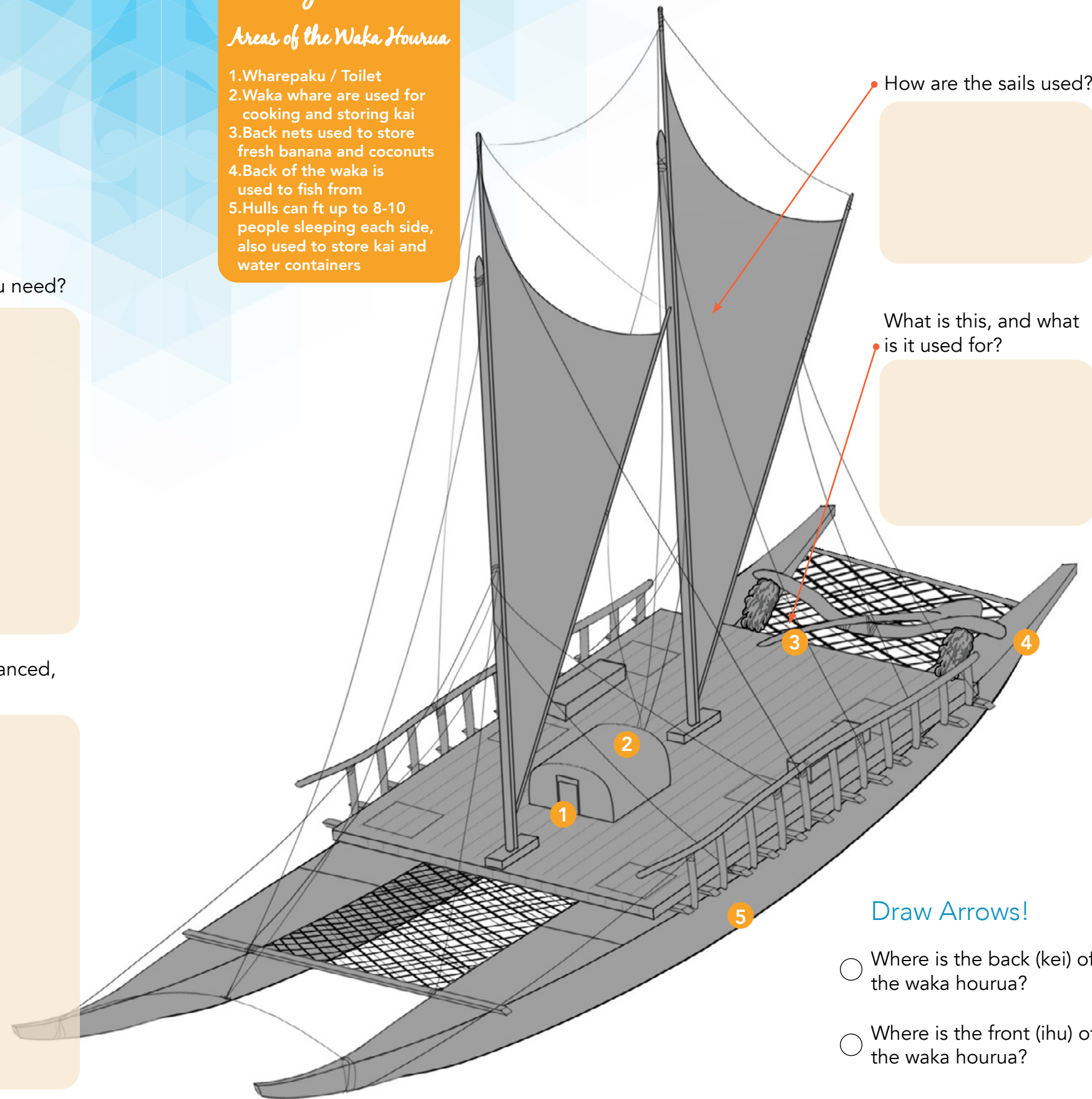
Did you know?

Areas of the Waka Hourua

1. Wharepaku / Toilet
2. Waka whare are used for cooking and storing kai
3. Back nets used to store fresh banana and coconuts
4. Back of the waka is used to fish from
5. Hulls can fit up to 8-10 people sleeping each side, also used to store kai and water containers

How are the sails used?

What is this, and what is it used for?



Draw Arrows!

- ☐ Where is the back (kei) of the waka hourua?
- ☐ Where is the front (ihu) of the waka hourua?

EXERCISE 4

WAKA SAFETY

SAFETY CHECKS

There are a number of safety checks we need to do before taking our waka taurua out sailing. Some checks have to be done before you leave school or your home, other checks need to be done just before going on the water. Choose which column the checks belong in and say why.

- Checking the weather forecast (anything over 13 knots (24 km/h) is unsafe for waka taurua)
- Checking the Tide (is it incoming or outgoing)
- Checking you have the correct number of life jackets and paddling hoe
- Check you have VHF radios
- Checking waka lines/rigging is tight
- Checking the wind (looking at tress, water and smoke to see the wind direction)
- Checking for currents (looking at driftwood)
- Check everyone is wearing a life jacket

Check List 1 (done 1-2 days before the sail)

Check List 2 (done just before the sail)

Did you know the Tides?



Tai Pari and Tai Timu
(High Tide and Low Tide)

The rise and fall of tides causes water to move in and out of estuaries, bays and harbours. This movement is called a tidal current. When the tide is rising, water flows from the ocean into the bay creating an incoming tide and current. When the tide falls, water flows from the bay back into the ocean creating an outgoing tide and current.



Which tides is this, and which direction is the water flowing?



Which tides is this, and which direction is the water flowing?

If paddling, sailing or swimming near a river mouth, which tide can be more dangerous, give a reason why?



KORORĀ SANCTUARY

NAPIER^o
PORT
Te Herenga Waka o Ahuriri

EXERCISE 5

THE NAPIER PORT KORORĀ PROGRAMME

Sometimes we will be sailing our waka taurua over near the Napier Port, so we might get to see these Kororā penguins. Who now have new flash kainga to live in when they come onshore to nest.

PROTECTING THE KORORĀ

As part of the development, Napier Port has developed the first on-port sanctuary of its kind in New Zealand to protect the kororā/little blue penguin, an at-risk and declining species. A few years ago Napier Port undertook its first penguin survey and found around 70 pairs of kororā nesting in and around the revetment walls at Napier Port. Today we have around 91.

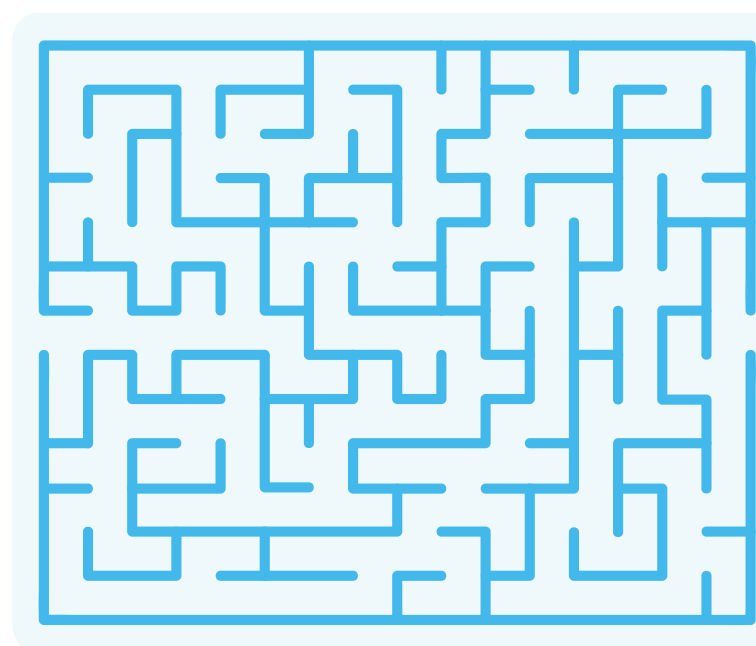
THE KORORĀ

The world's smallest penguin – little penguin (also known as little blue penguin) – is just over 25 cm tall and weighs around 1 kg. Little penguins were common in New Zealand, but most are now on offshore islands where there is less disturbance.

Their population and range of has been declining in areas not protected from predators.

Adult birds come ashore between May and June to prepare nests. They may waddle up to 1.5 km from the sea, and climb 300 m to find the perfect nest site.

Help kororā to find its way through a maze to get to its nest!!



List 3 facts you have learned about
the Kororā:

Did you know?

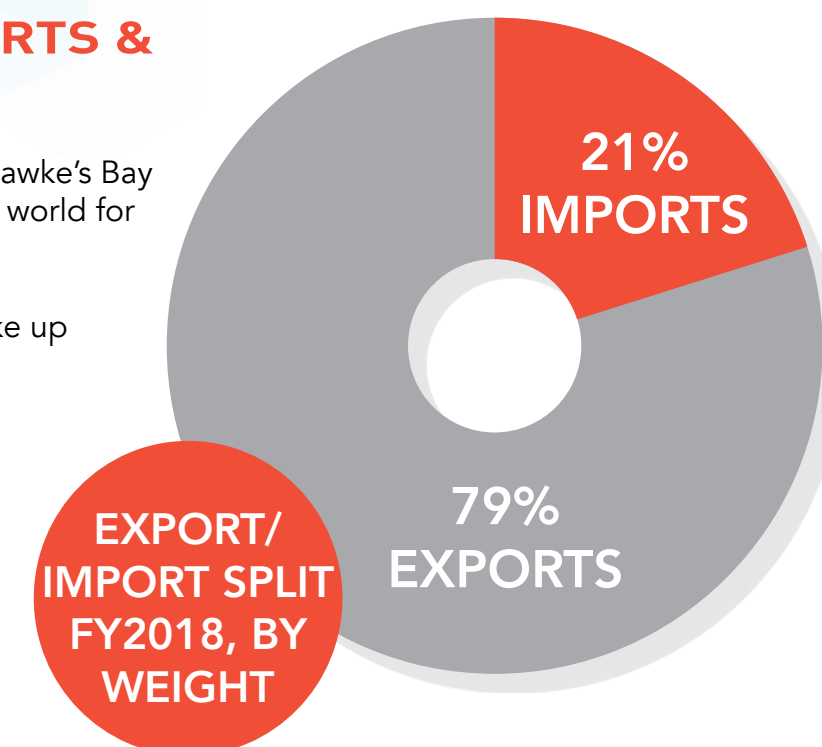
Their paddle-like flippers are excellent for 'flying' through the water at speeds of up to 6 km/h.

EXERCISE 6

HAWKE'S BAY IMPORTS & EXPORTS

Napier Port has been connecting Hawke's Bay with the people and markets of the world for nearly 150 years.

Imports make up 21%, Exports make up 79% of business at Napier Port.



What Are Exports?

A lot of fruit is grown in Hawkes Bay. This fruit is exported to many other countries. This means that they are sent to other countries. Our Fruit growers get money in return for selling the fruit.

What Are Imports?

If you have a toy at home, your toy was most likely an import. Many toys sold in Aotearoa/NZ are made in China. The toys are then imported into NZ. This means that the toy was brought into NZ. The factory in China that made the toy gets money in return.

EXERCISE 7

IMPORTS & EXPORTS FOR WAKA

Trading goods has been going on for thousands of years, and was one of the main reasons that waka hourua voyaged through Te Moana nui a Kiwa / the Pacific Ocean.

Below is a list of things that are often taken on a long waka hourua voyage.

Match up what would be in the category of Imports to Aotearoa / NZ and what would be an Export, and write the reasons why.

- Coconuts
- Water
- Apples
- Native Timber - Wood
- Rice



IMPORTS

EXPORTS

NOTES:

