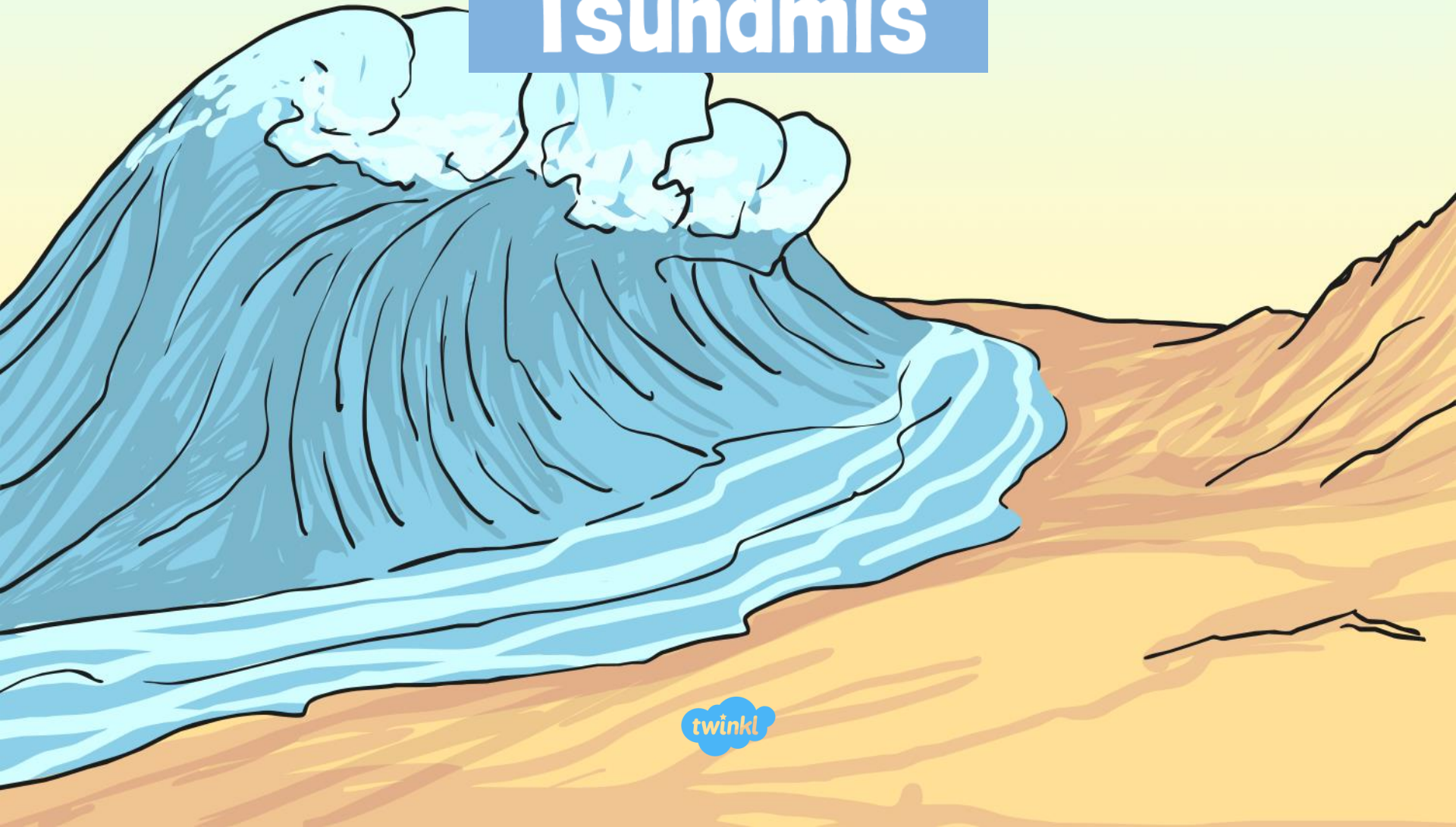


# Natural Disasters

## Tsunamis



# What is a Tsunami?

What do you think a tsunami is?

Tsunami is a Japanese word.

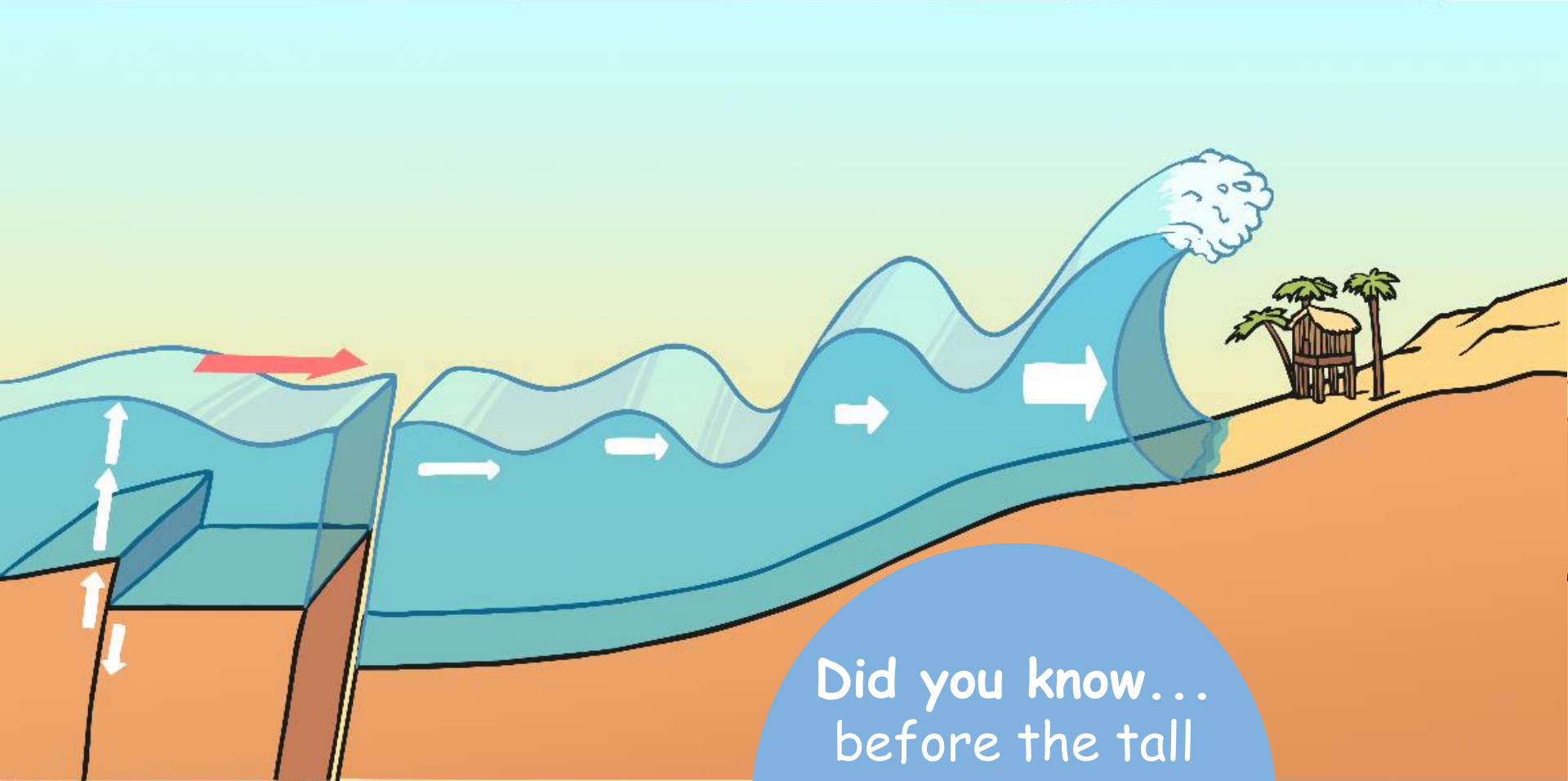
It means 'Harbour Wave'.

A tsunami is a giant wave.

Was your idea close to the real meaning?

# What causes a Tsunami?

- A tsunami is a giant wave caused by a huge earthquake under the ocean.
- The earthquake causes a large amount of water to be displaced very quickly.
- A series of waves travels through the deep water.
- As the waves travel through shallower water near the land, they get bigger.



Did you know...  
before the tall  
wave hits the land,  
the water level at  
the shore will  
drop?





# What Causes a Tsunami?

Watch this video which shows how a tsunami is formed.



To watch the video – copy the link  
into your browser

<https://www.youtube.com/watch?v=Wx9vPv-T51I>



# What Damage Does a Tsunami Cause?

What can you see that looks out of place?

What kinds of damage have occurred in the area?

If you were in a rescue team who have just arrived at the scene, what kinds of help might you need to give?



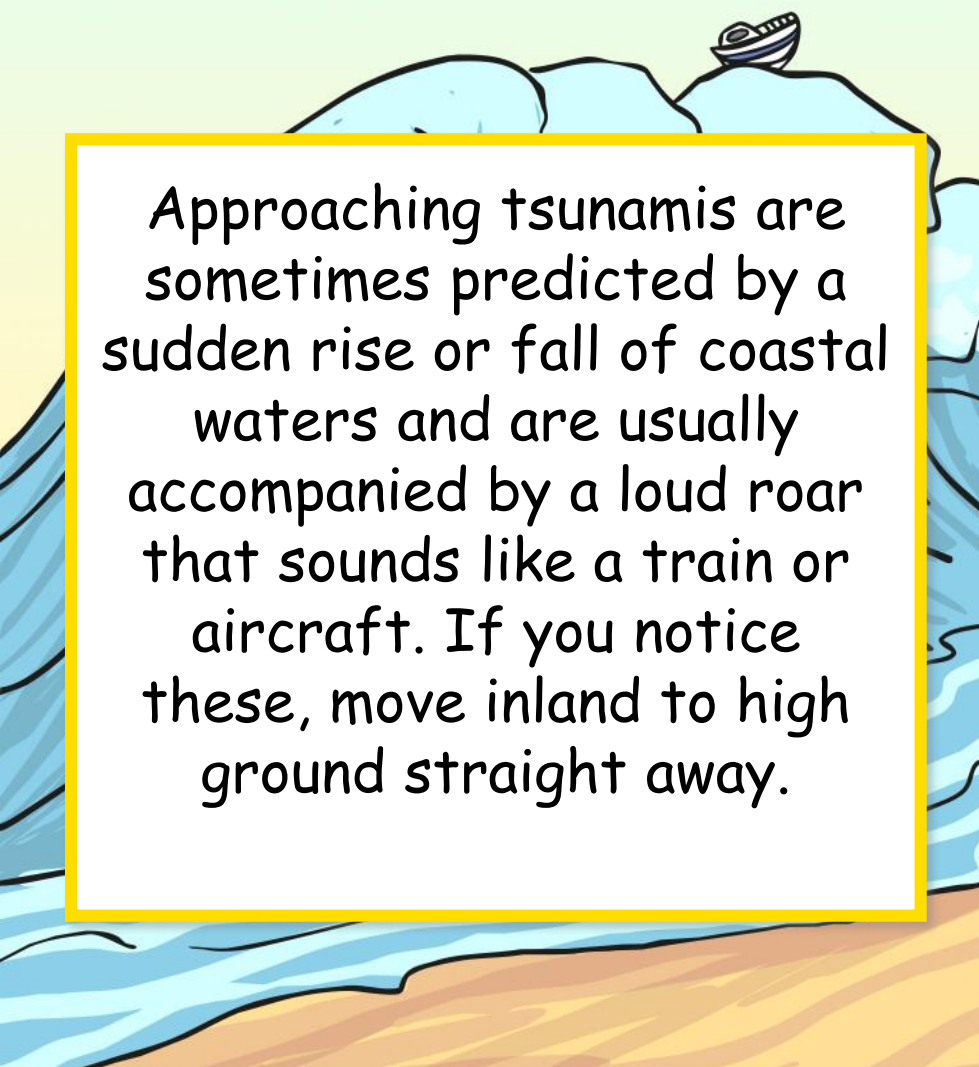
# TSUNAMI HAZARD ZONE



IN CASE OF EARTHQUAKE GO  
TO HIGH GROUND OR INLAND



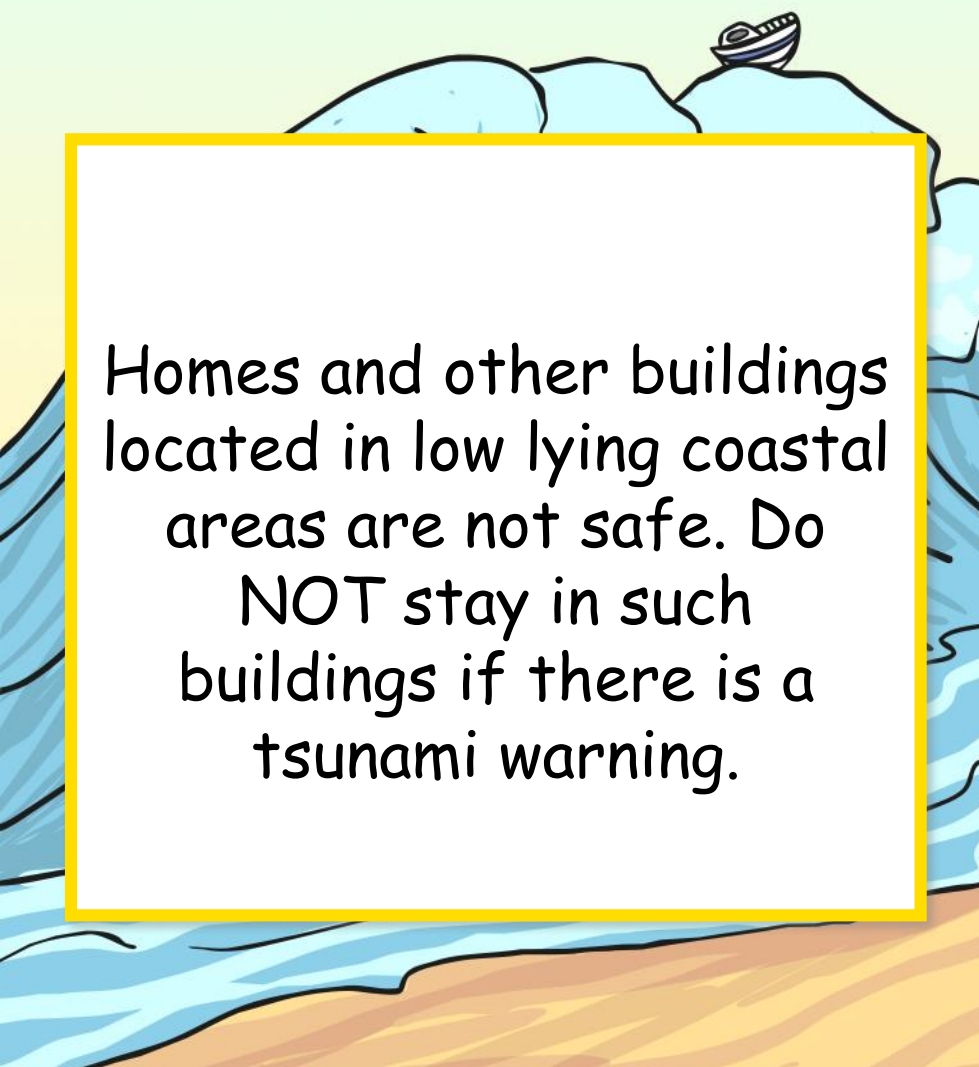
# Tsunami Safety Rules

A cartoon illustration of a large, blue tsunami wave with white foam, crashing over a sandy beach. A small boat is shown riding the crest of the wave. The background is a light blue sky and a yellowish-brown beach.

Approaching tsunamis are sometimes predicted by a sudden rise or fall of coastal waters and are usually accompanied by a loud roar that sounds like a train or aircraft. If you notice these, move inland to high ground straight away.

Stay out of danger until an "ALL CLEAR" is issued by the emergency services.

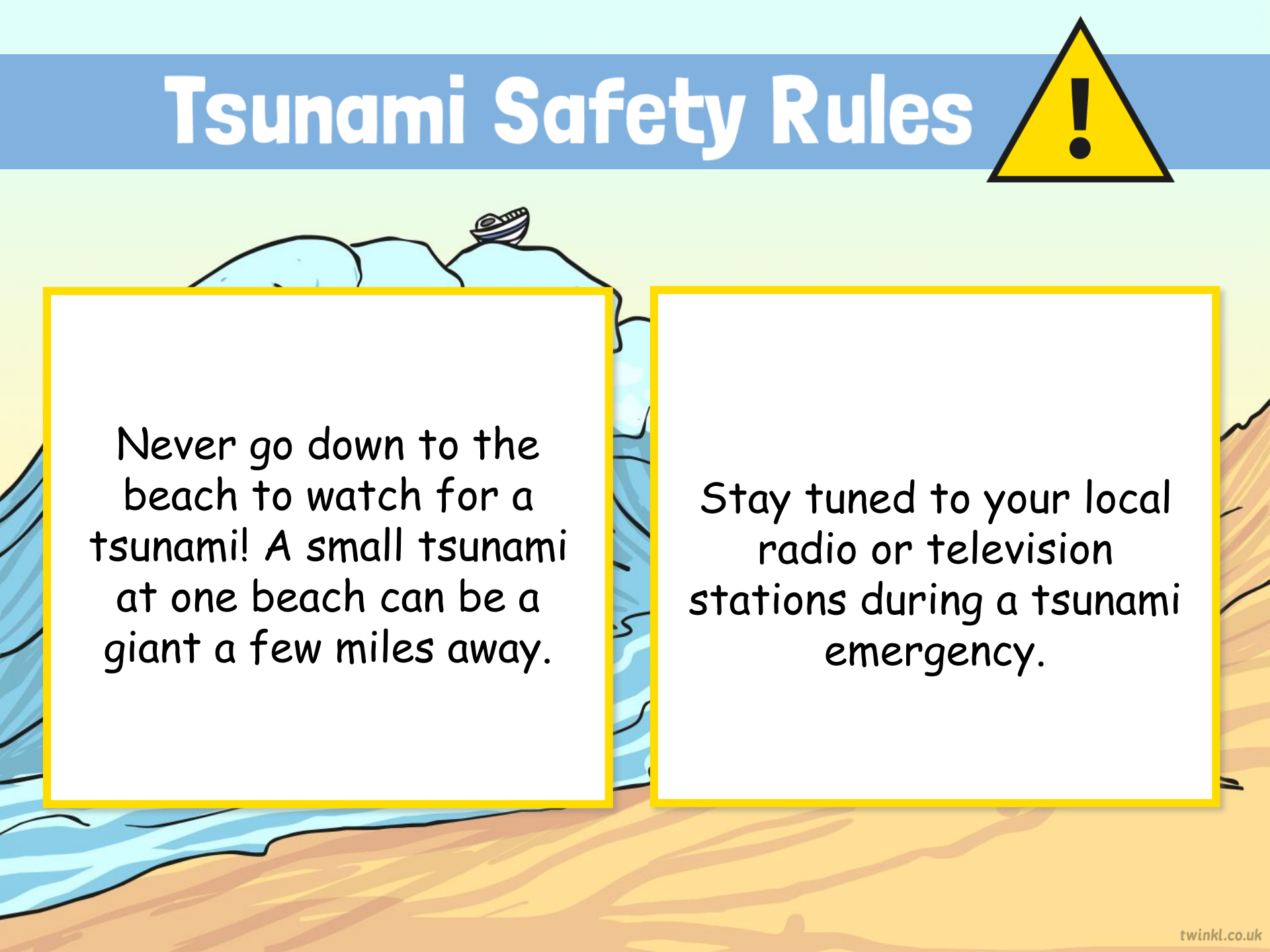
# Tsunami Safety Rules

A cartoon illustration of a large, blue tsunami wave crashing over a small boat. The wave is depicted with white foam and blue water. The boat is a small, white, motorized vessel. The background is a light blue sky and a sandy beach in the foreground.

Homes and other buildings located in low lying coastal areas are not safe. Do NOT stay in such buildings if there is a tsunami warning.

The upper floors of high, multi-story, reinforced concrete hotels can provide safety if there is no time to quickly move inland or to higher ground.

# Tsunami Safety Rules

The background of the slide is a cartoon illustration of a beach. In the foreground, there is a sandy beach with wavy lines representing sand. To the left, blue waves are crashing onto the shore. In the middle ground, a small blue and white boat is perched on a light blue rock. The sky is a pale yellow-green.

Never go down to the beach to watch for a tsunami! A small tsunami at one beach can be a giant a few miles away.

Stay tuned to your local radio or television stations during a tsunami emergency.



# Tsunamis Around the World

## Japan - 2011

At 2:46pm, an 8.9 magnitude earthquake struck the north east coast of Japan. The quake triggered a huge tsunami which swept inland. In places, the tsunami waves reached as far as 10k inland and entire towns virtually disappeared. Japan has the longest recorded history of tsunamis.

## Sumatra, Indonesia - 2004

This Indian Ocean earthquake and tsunami was the most devastating of its kind in modern times, killing 230,000 people in 14 countries, and bringing waves of up to 30m high. It was the third largest earthquake ever recorded, had the longest duration ever observed (8.3 - 10 minutes), and caused the entire planet to vibrate.



# Tsunamis Around the World

## Lisbon - 1755

The earthquake and tsunami almost totally destroyed Lisbon and had a death toll in Lisbon alone of between 10,000 and 100,000 people, making it one of the deadliest disasters in history.

## Italy - 1908

The Messina earthquake and tsunami took about 123,000 lives in Sicily and Calabria, southern Italy. The major cities of Messina and Reggio Calabria were almost completely destroyed.

## Italy - 1783

The Calabrian earthquakes were a sequence of five strong earthquakes that hit the region of Calabria, the first two of which produced tsunamis. The death toll lies in the range of 32,000 to 50,000 people.

