

Something to do 2: watching the tides

You will need:

- a watch
- some numbered marker sticks
- a hammer to drive the sticks into the mud
- maybe a camera

When you arrive at the Inlet, note down the time in column 1. ⇒

Hammer stick number 1 into the mud at the water's edge. Thirty minutes later, hammer stick number 2 into the new water's edge and measure the distance between the two sticks. Write the distance in column 2. ⇒

Every 30 minutes until you go back to school, hammer another stick at the water's edge, and measure how far apart they are.

If you've got a camera, take a photo showing all your sticks.

Column 1: Time

Column 2: Distance between the sticks

At the end of your trip, draw a picture with the times and distances, marked to scale. If you took a camera to the Inlet, you can draw the information on your photo.

- Was the tide coming in or going out when you put the first stick in the mud?
- What happened later in the day?
- Did the movement of the tide change direction?
- Were your sticks the same distance apart?
- How far did the tide move during your time at the Inlet?

Some questions about tides



The force of gravity holds things down on the surface of the earth. Gravity pulls us downwards, and it also pulls the water of the oceans downwards. The moon has a force of gravity. The moon is a long way from earth, and its gravity is weaker than earth's, but strong enough to pull oceans towards it, and so cause the tides.

The tide comes in twice a day, but not at exactly the same time. Tide times get 25 minutes later each tide, and 50 minutes later each day. Tides are not at the same time everywhere in New Zealand. For instance, Porirua and Plimmerton's tides are about six hours later than Wellington's, but 20 minutes earlier than at Port Taranaki (New Plymouth). At the top of Pauatahanui Inlet the tide is between 45 and 60 minutes later than at Paremata bridge.

Spring tides are tides that are extra high or extra low. They don't just happen in spring—they come about 14 days apart, and they happen at every season of the year.