



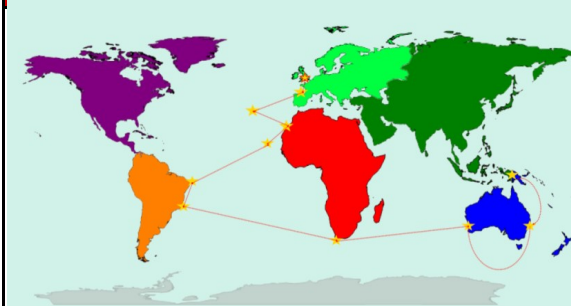
Geography: Purple Class

How do the cities that Michael travels to compare with Nagasaki?

Kensuke's Kingdom: Key Vocabulary

| | |
|---------------|---|
| adamant | refusing to be persuaded or to change one's mind |
| anguish | severe mental or physical pain or suffering. |
| binoculars | an optical instrument with a lens for each eye, used for viewing distant objects. |
| brackish | (of water) slightly salty, as in river estuaries |
| cacophany | a harsh discordant mixture of sounds. |
| canopy | the uppermost branches of the trees in a forest, forming a more or less continuous layer of foliage |
| flotsam | the wreckage of a ship or its cargo found floating on or washed up by the sea |
| flounder | struggle or stagger clumsily in mud or water |
| galley | the kitchen in a ship or aircraft |
| marooned | leave (someone) trapped and alone in an inaccessible place, especially an island |
| Nagasaki | a city on the island of Kyushu in Japan |
| Pacific Ocean | The Pacific Ocean is the largest and deepest of Earth's oceanic divisions. It extends from the Arctic Ocean in the north to the Southern Ocean in the south |
| mellifluous | of a sound) pleasingly smooth and musical to hear |
| outrigger | a float or secondary hull fixed parallel to a canoe or small boat to stabilize it |
| sextant | a sighting mechanism, used for measuring the angular distances between objects and especially for taking altitudes in navigation |

Michael's journey aboard the Peggy Sue



- Southampton - England
- A Coruña - Spain
- The Azores
- The Canary Islands
- Cape Verde Islands
- Recife - Brazil
- Rio de Janeiro - Brazil
- Cape Town- South Africa
- Perth - Australia
- Sydney - Australia
- Coral Islands

Why was Kensuke on the island in the Coral Sea?

When World War 2 came, Kensuke joined the Japanese Navy as a doctor, and was the sole survivor of an attack on his ship. Later, overhearing some Americans talking about the bomb that was dropped on Nagasaki, killing everyone, Kensuke decided to remain on the island after the war had ended.

Kensuke's birthplace Nagasaki– Japan



In the early 20th century the city became a major shipbuilding centre; it was this industry that led to Nagasaki being chosen as a target for the second atomic bomb dropped on Japan by the United States in World War II. The bomb was dropped on August 9, 1945, and destroyed the innermost portion of Nagasaki; between 60,000 and 80,000 persons were killed.

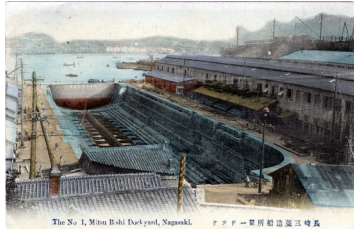
Some comparisons...

| | Country | Continent | Population | Ave. temp. |
|--------------------|--------------|---------------|------------|------------|
| Nagasaki | Japan | Asia | 414,000 | 16.9 C |
| Southampton | England | Europe | 265000 | 10.6 C |
| A Coruña | Spain | Europe | 244000 | 14.2 C |
| The Azores | Portugal | Europe | 247000 | 17.1 C |
| The Canary Islands | Spain | Europe | 2,150,000 | 16.7 C |
| Cape Verde Islands | Independent | Africa | 549000 | 27 C |
| Recife | Brazil | South America | 1,700,000 | 25.8 C |
| Rio de Janeiro | Brazil | South America | 6,320,000 | 23.2 C |
| Cape Town | South Africa | South Africa | 4,524,000 | 16.9 C |
| Perth | Australia | Oceania | 2,016,000 | 18.7 C |
| Sydney | Australia | Oceania | 246,343 | 17.6 C |

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What happened in Nagasaki during World War 2?



Nagasaki before the atomic bomb

THE FIRST ATOMIC BOMBS
The first atomic bomb was built in Los Alamos, New Mexico, during World War II under a top secret U.S. government program called the Manhattan Project. Los Alamos was approved as the site for the main atomic-bomb scientific laboratory on November 25, 1942, by Brigadier General Leslie R. Groves and physicist J. Robert Oppenheimer.

THE FIRST TEST
Code name: Trinity
Location: Alamogordo, New Mexico
Date: July 16, 1945, 5:30 AM
Bomb name: Gadget
Bomb type: plutonium-239 Implosion
TNT equivalent: 20,000 tons

NEW MEXICO
Los Alamos
Albuquerque
Santa Fe
El Paso
Silverton
Alamogordo

HIROSHIMA
Date: August 6, 1945, 8:15 AM
Bomb name: Little Boy
Bomb type: uranium
Deployment: B-29 bomber Bockscar, aircraft at 31,000 FT above the city
TNT equivalent: 15,000 tons (estimated)
Estimated casualties: 140,000 by year's end

BOMB CUTAWAYS
For an atomic bomb to explode, a nuclear chain reaction must start. Uranium-235 fission bomb
In a gun assembly bomb, a mass of uranium-235 is fired down a "gun barrel" toward another mass of U-235 to start the reaction.
Implosion fission bomb
In an implosion bomb, a sphere of plutonium-239 is surrounded by high explosives that compress the plutonium.

NAGASAKI
Date: August 9, 1945, 11:02 AM
Bomb name: Fat Man
Bomb type: Implosion
Deployment: B-29 bomber Bockscar, aircraft at 16,000 FT above the city
TNT equivalent: 20,000 tons (estimated)
Estimated casualties: 70,000 by year's end



Nagasaki after the atomic bomb

On August 6, 1945, during World War II (1939-45), an American B-29 bomber dropped the world's first deployed atomic bomb over the Japanese city of Hiroshima. The explosion wiped out 90 percent of the city and immediately killed 80,000 people; tens of thousands more would later die of radiation exposure. Three days later, a second B-29 dropped another A-bomb on Nagasaki, killing an estimated 40,000 people. Japan's Emperor Hirohito announced his country's unconditional surrender in World War II in a radio address on August 15, citing the devastating power of 'a new and most cruel bomb'.

Key Vocabulary

| | |
|-------------------------|---|
| atomic bomb | a bomb which derives its destructive power from the rapid release of nuclear energy by fission of heavy atomic nuclei, causing damage through heat, blast and radioactivity |
| deployed | bring into effective action. |
| radiation | the emission of energy as electromagnetic waves |
| exposure | the state of having no protection from something harmful. |
| unconditional surrender | a surrender in which no guarantees are given to the surrendering party |
| citing | refer to as evidence for, or justification of, an argument or statement |
| devastating | highly destructive or damaging |
| constitute | be (a part) of a whole |
| territory | an area of land under the jurisdiction of a ruler or state. |
| indigenous | originating or occurring naturally in a particular place; native |
| meteorological | relating to the branch of science concerned with the processes and phenomena of the atmosphere, especially as a means of forecasting the weather |

The Coral Sea Islands

Coral Sea Islands, officially Coral Sea Islands Territory, are a group of islands situated east of Queensland, Australia, in the South Pacific Ocean; they constitute an external territory of Australia. Spread over a vast sea area of about 300,000 square miles (780,000 square km) off the outer (eastern) edge of the Great Barrier Reef, the islands themselves occupy only a few square miles of actual land area. They consist of widely scattered coral reefs and sand banks that support large populations of seabirds.

Population: There are no indigenous inhabitants.

There is a staff of four people at the meteorological centre on Willis Island

