

What is an island?

1. Students will understand the definition of an island:

Vocabulary

An **island** or **isle** is any piece of land that is completely surrounded by water. Very small islands such as emergent land features on atolls are called **islets**. A **key** or cay is another name for a relatively small island or islet. An island in a river or lake is called an **eyot**.

There are two main types of islands: **continental islands** and **oceanic islands**. There are also artificial islands. A grouping of related islands is called an archipelago.

The word island comes from Old English igland. However, the spelling of the word was modified in the 15th century by association with the Old French loanword isle.

2. Students will understand that there is a difference between an island and a continent:

Why should Australia be considered a continent and Greenland an island? The answer is not clear-cut, but there are rational reasons behind it.

The characteristics of continents are these:

- areas of geologically stable continental crust, or cratons, tectonically independent from other continents
- biological distinctiveness, with unique animal and plant life
- cultural uniqueness
- local belief in separate continental status.

Obviously, the first two are scientific, and the second two are more subjective. Compare Australia and Greenland, the largest island:

	Australia	Greenland
Tectonic independence from other continents	YES	NO
Unique flora and fauna	YES	NO
Unique cultures	YES	NO
Local opinion	MIXED	ISLAND

To elaborate:

- Australia is separated from all other continents by young oceanic crust. Greenland is geologically part of North America.
- Australia has highly distinct plants and animals. Greenland's are largely shared with northern North America.
- Australia is considerably larger than Greenland. If separation is the key, then Antarctica should also be considered an island (making Australia the second largest).
- Australia has unique, ancient cultures. Greenland's Arctic cultures, while unique, are part of a larger North American Arctic culture.

- Everyone agrees that everything smaller than Australia is an island. Australians themselves are divided, and often claim that Australia is both the world's largest island and the world's smallest continent.

So, there are good reasons to assert that Australia is a continent and not an island.

However, it has to be conceded that there can be no definitive answer. The questions only grow more complex when you look at the details:

1. By scientific criteria, Madagascar and several other islands are continents.
2. Europe is really just a series of peninsulas off Western Asia. Only culture, tradition and sense of self gave it continental status.
3. Siberia and Alaska are not part of separate continents geologically. The sea barrier between them is just a happenstance of the current high sea levels of this interglacial period.
4. Africa is solidly joined to southwest Asia, though in the process of rifting away.
5. The Americas are joined by a substantial but recent land bridge. The above information is sourced from: <http://www.rcn.com/>

3. Students will understand that there are two types of islands:

3.1 Continental islands

Continental islands are bodies of land that lie on the continental shelf of a continent.

Examples include Greenland, Sable Island; Barbados, Trinidad, Great Britain, Ireland, Sicily, Sumatra, Java, New Guinea and Tasmania.

A special type of Continental Island is the microcontinental island, which results when a continent is rifted. Examples are Madagascar, the Kerguelen Islands and some of the Seychelles.

Another subtype is an island or bar formed by deposition of sediment where water current loses some of its carrying capacity. An example is barrier islands, which are accumulations of sand deposited by sea currents on the continental shelf. Another example is islands in river deltas or in large rivers. While some are transitory and may disappear if the volume or speed of the current changes, others are stable and long-lived.

3.2. Oceanic islands

Oceanic islands are islands that do not sit on continental shelves. They are volcanic in origin. There are 3 types of oceanic islands:

- i. One type of oceanic island is found in a volcanic island arc. These islands arise from volcanoes where the subduction of one plate under another is occurring. Examples include the Mariana Islands, the Aleutian Islands, Republic of Mauritius and most of Tonga in the Pacific Ocean. Some of the Lesser Antilles and the South Sandwich Islands are the only Atlantic Ocean examples.
- ii. Another type of oceanic island occurs where an oceanic rift reaches the surface. There are two examples: Iceland, which is the world's largest volcanic island, and Jan Mayen — both are in the Atlantic.
- iii. A third type of oceanic island is formed over volcanic hotspots. A hotspot is more or less stationary relative to the moving tectonic plate above it, so a chain of islands results as the plate drifts. Over long periods of time, this type of island is eventually eroded down and 'drowned' by isostatic adjustment, becoming a seamount. Plate movement across a hot-spot produces a line of islands oriented in the direction of the plate movement. An example is the Hawaiian

Islands, from Hawaii to Kure, which then extends beneath the sea surface in a more northerly direction as the Emperor Seamounts. Another chain with similar orientation is the Tuamotu Archipelago; its older, northerly trend is the Line Islands. The southernmost chain is the Austral Islands, with its northerly trending being the atolls in the nation of Tuvalu. Tristan da Cunha is an example of a hotspot volcano in the Atlantic Ocean. Another hot spot in the Atlantic is the island of Surtsey, which was formed in 1963. An atoll is an island formed from a coral reef that has grown on an eroded and submerged volcanic island. The reef rises to the surface of the water and forms a new island. Atolls are typically ring-shaped with a central lagoon. Examples include the Maldives in the Indian Ocean and Line Islands in the Pacific.

4. Students will understand that islands may be located in different spaces and have different political areas:

- within a river, a lake
- be an island nation
- be a divided island nation
- be an artificial island
- be a tidal island
- be a desert island.

5. Students will understand that islands can be characterised in many different ways:

- See World Island Information <http://www.worldislandinfo.com/index.html> for a list of the wide variety of attributes of islands.

6 Students will be able to find an island

- Students will be able to use the Internet to locate an island on a world map and find information about it. <http://worldatlas.com/webimage/countrys/io.htm>

Resources

- Small Island Cultures Research Initiative - <http://www.sicri.org/index.htm>
- International Small Island Studies Association - <http://www.geol.utas.edu.au/isisa/index.htm>
- Institute of Island Studies - <http://www.upei.ca/%7Eiis/about.htm>
- Global Islands Network - <http://www.globalislands.net/intro/intro.php>
- Small Island Developing States - <http://www.sidsnet.org/>
- University of Hawaii's Centre for Pacific Island Studies - <http://www.hawaii.edu/cpis/>
- Small Island Voice - <http://www.unesco.org/csi/smis/siv/sivindex.htm>
- UN works for Small Island Nations - <http://www.un.org/works/smallislands/index.asp>