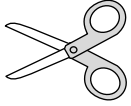


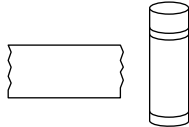
Hands-on Science Project

MAP THE JOURNEY OF THE H.M.S. BEAGLE

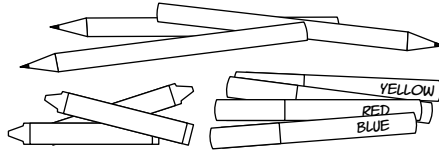
MATERIALS:



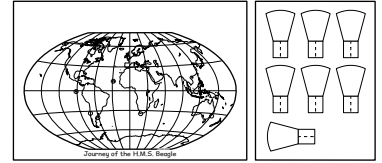
scissors



tape or
glue



crayons, colored pencils, or markers



world map and 3-D labels
(templates in appendix)

The Beagle had made one previous trip to South America to survey and map the area. A second journey was planned that would circumnavigate the globe. Charles Darwin secured passage as the ship's naturalist. The journey took 5 years and included many extended stops with exploration expeditions. Darwin wrote frequent letters and kept a detailed diary as they traveled. His observations were instrumental in the famous book he published years later: *On the Origin of Species*.

Map the journey

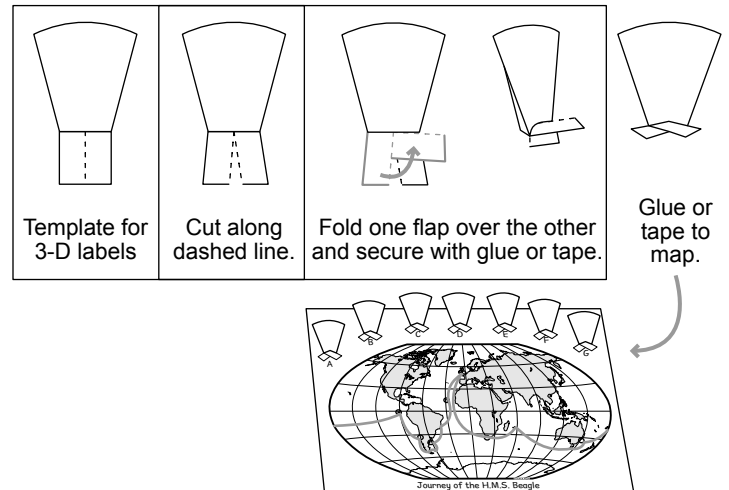
1. Print and color the world map (pg 120 in the appendix). Then draw the 1831-1836 journey of the H.M.S. Beagle on the map. Use the list of stops and example map below to help chart the course.

2. Match each of the clues on the following page to the circled locations on the world map template.

3. Color the 3-D pop up labels. You can use either the pre-drawn cutouts or create your own (instructions in appendix).

4. Cut and fold each cutout, securing the flaps with glue so that they stand upright.

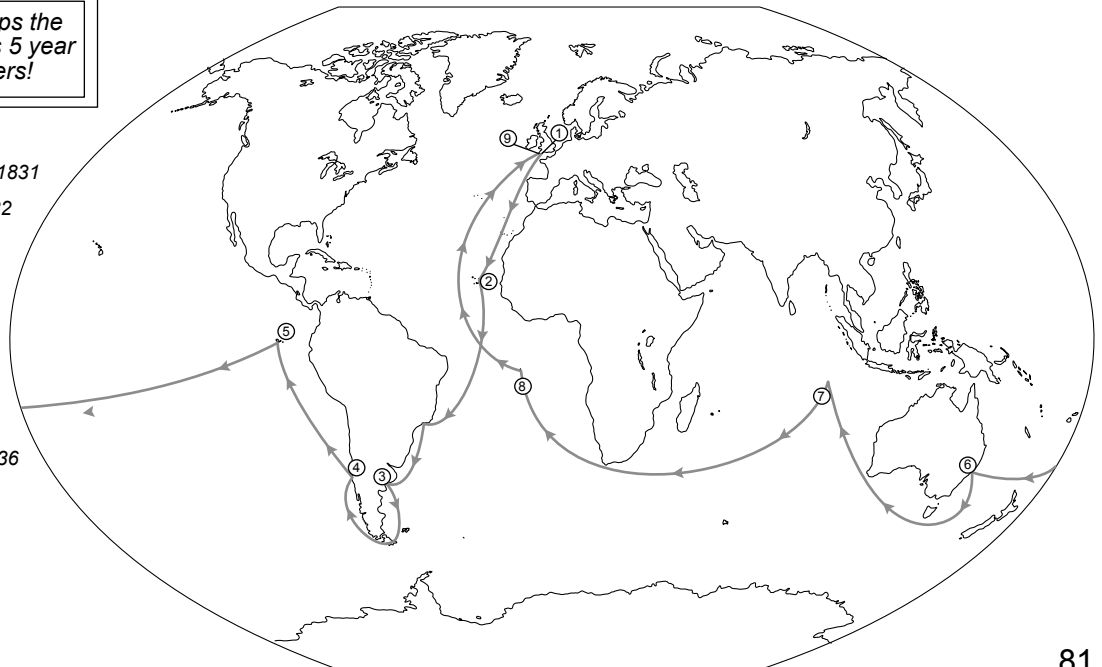
5. Arrange the 3-D cutouts across the top of the map. Glue them in place and write the corresponding letter or place name next to each cutout.



Selected stops along the way

These are just a few of the stops the H.M.S. Beagle made during its 5 year journey. There were many others!

1. Plymouth, England Dec 27, 1831
2. Cape Verde Islands Jan 1832
3. Punta Alta Sep 1832
4. Concepción Mar 1835
5. Galápagos Sep-Oct 1835
6. Wallerawang Jan 1836
7. Keeling Islands Apr 1836
8. Ascension Island, Jul 1836
9. Falmouth, England Oct 2 1836



7 STOPS MADE BY THE H.M.S. BEAGLE

Draw lines between each description to match it with the correct location. Each description matches a stop made by the H.M.S. Beagle. The pictures on the next page provide additional clues.

It was here Darwin found the fossilized skull of an extinct megatherium (giant ground sloth), which was about the size of an elephant! This skull allowed scientists to assemble a full megatherium skeleton for the first time.

CLIMATE: SUBTROPICAL
CLOSEST OCEAN: ATLANTIC
CLOSEST CONTINENT: SOUTH AMERICA

Darwin encountered marine iguanas, birds, land tortoises, and many other creatures. While studying finches, he noticed distinct differences in their beaks that correlated with the differences in their available food.

CLIMATE: HOT AND DRY
CLOSEST OCEAN: PACIFIC
CLOSEST CONTINENT: SOUTH AMERICA

After a large earthquake, Darwin found mussel beds had been raised above the water level. He also found marine shells in the mountains that proved the land had risen over time.

CLIMATE: SUBTROPICAL
CLOSEST OCEAN: PACIFIC
CLOSEST CONTINENT: SOUTH AMERICA

Though the black and red volcanic island had been described as "hell with the fire put out," Darwin saw potential.

He later convinced the British Admiralty to plant trees on the island. A century and a half later, the island is covered in trees and vegetation with a National Park called, "Green Mountain." The forest of planted trees didn't just change the soil on the island, it changed the weather too!

CLIMATE: HOT AND DRY
CLOSEST OCEAN: ATLANTIC
CLOSEST CONTINENT: AFRICA

Here Darwin saw a platypus and many other marsupials. Despite how different these marsupials were from the animals in England, he observed that they had similar behaviors and filled the same ecological niche as the mammal species back home.

CLIMATE: TROPICAL
CLOSEST OCEAN: PACIFIC
CLOSEST CONTINENT: AUSTRALIA

At these islands, Darwin saw rock made from shells and coral sandwiched between layers of volcanic rock. The sedimentary rock could only form at the beach or underwater, yet here it was high above sea level.

CLIMATE: TROPICAL
CLOSEST OCEAN: ATLANTIC
CLOSEST CONTINENT: AFRICA

Darwin created a theory that coral reefs are formed as volcanic islands gradually subside into the ocean. At these islands, he was able to find evidence to support this theory as he collected many geological, plant, and animal specimens.

CLIMATE: TROPICAL
CLOSEST OCEAN: INDIAN
CLOSEST COUNTRY: INDONESIA

Concepción

Punta Alta

Galápagos Islands

Ascension Island

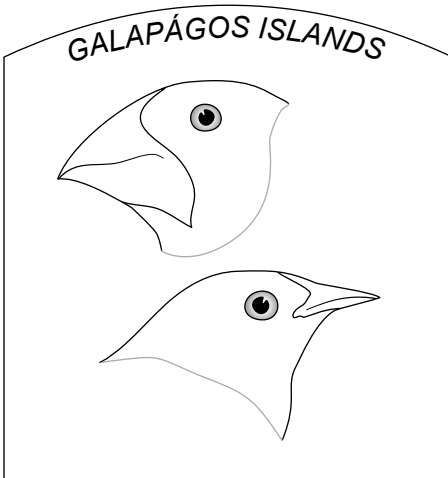
Cape Verde Islands

Wallerawang

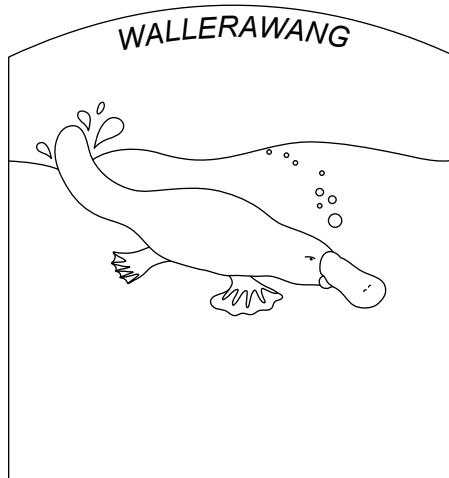
Keeling-Cocos Islands

7 STOPS MADE BY THE H.M.S. BEAGLE

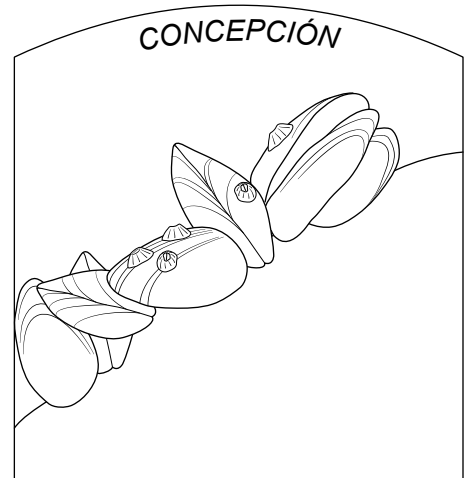
Circle the two locations you would most like to visit!



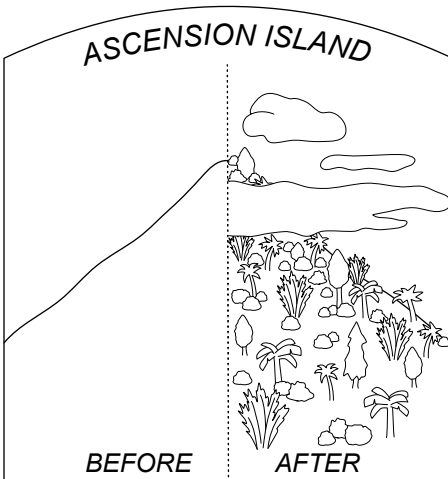
The Galapagos are part of the country of Ecuador. 97% of the islands belong to a national park and wildlife preserve.



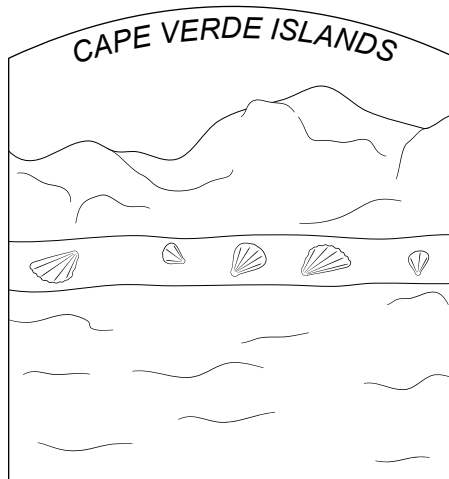
Wallerawang is located 150 kilometers northwest of Sydney near the Blue Mountains.



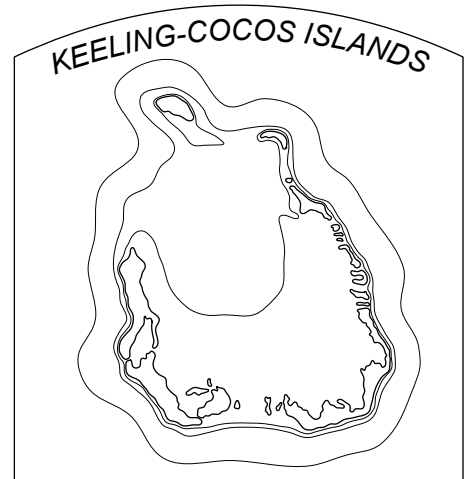
Of the world's known earthquakes of over 8.5 magnitude, nearly 1/3 have occurred in Chile.



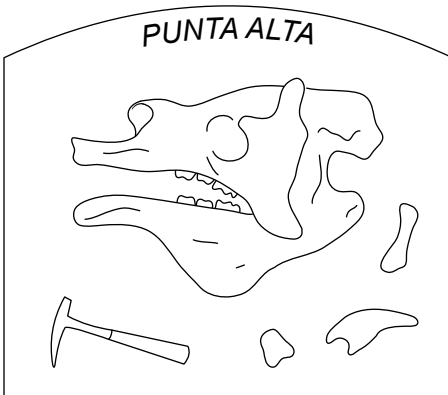
This British territory is a remote Atlantic island located about 1,600 km (1,000 miles) from the coast of Africa and 2,300 km (1,400 miles) from the coast of Brazil.



The Cape Verde Islands (officially named the Republic of Cabo Verde) is a group of volcanic islands located approximately 580 kilometers (360 miles) west of the westernmost point of Africa.

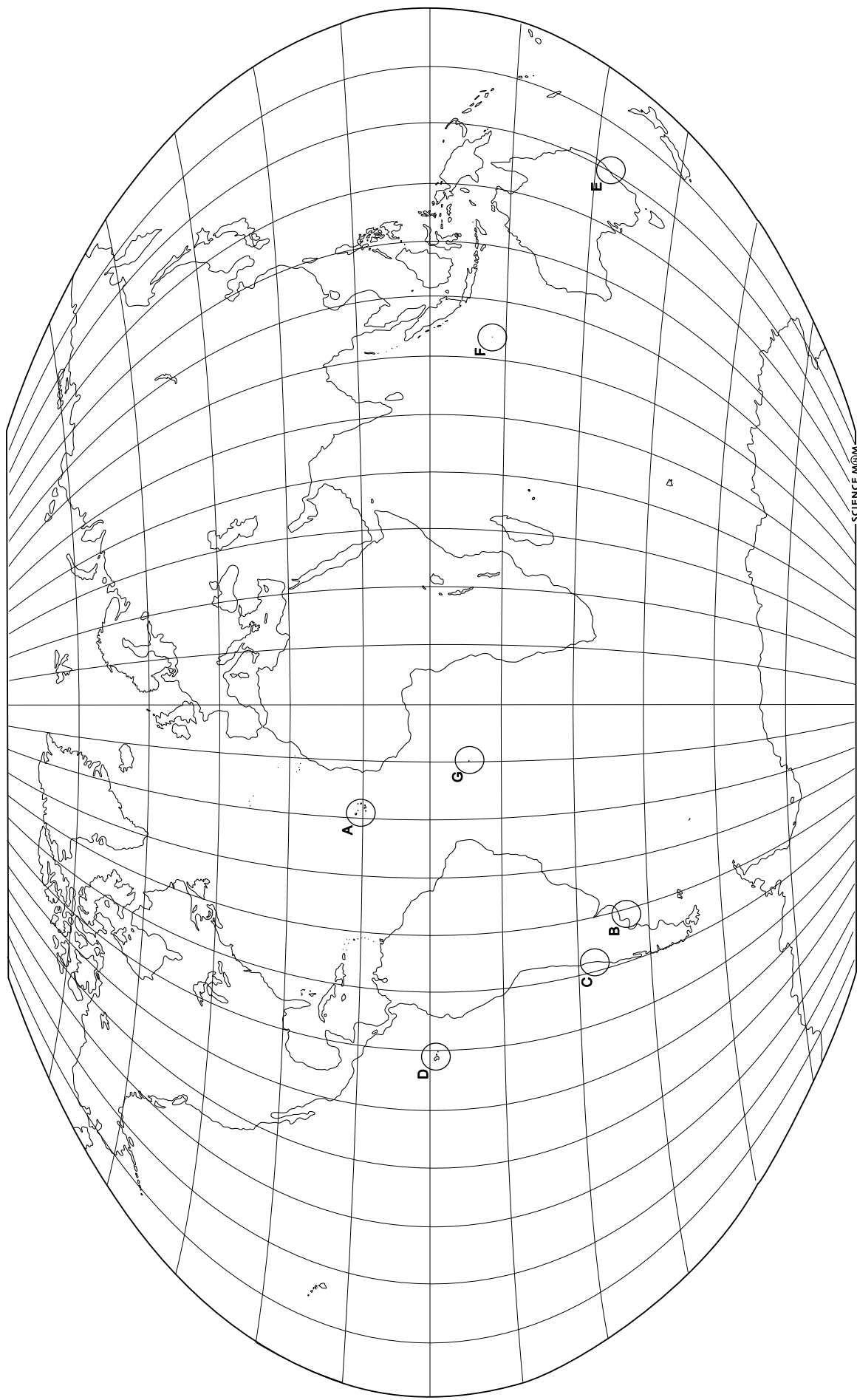


The Territory of Cocos (Keeling) Islands are an Australian territory located in the Indian Ocean. Only 2 of the 27 islands are inhabited.



The city of Punta Alta is located on the Atlantic coastline of Argentina.

What clues from his visits did Darwin use to develop his theories of natural history and evolution?



Journey of the H.M.S. Beagle

