History of exploration of the Sea

- Greeks, in 2000 BC started navigating
- Greeks in 330 BC had begun exploring and classifying animals and plants extensively.
- In around 300 BC Alexander the Great had a large (whole body) diving bell commissioned so he could go underwater and explore. The bell was tethered and had an air-in tube and a crude mechanism for eliminating CO2. It was made of wood!

More exploration…

- Vikings and Leif Erikson – 995 (discovered North America)
- Christopher Columbus – 1492 – (re-discovered N. America)
- Magellan – 1519 – circumnavigated the earth
- Exploration of the Mediterranean and Indian Oceans – Africa, Egypt, Portuguese and European sailors.
- Cooke and the Pacific. 1768. Used a chronometer for navigation. Much more accurate.

More recent advances

- Charles Darwin – 1831 – HMS Beagle – 5 years exploration led to the development of theory of evolution, coral atoll formation and world geology. He used a variety of crude technology (advanced for the day!), including nets, water temperature sensors, and sediment samplers.
- H.M.S. Challenger / Expedition (British) 1871 – 19 years total (3.5 years for the main expedition) years and filled 50 volumes. Part of this expedition involved extensive seafloor dredging. This inspired great interest in the oceans, and led to the discovery of zonation with depth.

Then came marine labs…

- Station Zoologica – 1872 – Naples Italia (established with the public and political momentum and interest inspired by the Challenger expedition)
- Marine Biological Station – Plymouth England (1879)
- Woods Hole, Mass. 1888 (Marine Biological Laboratory)
- Hopkins Marine Station (Pacific Grove) 1892 and then Scripps (San Diego)
- Friday Harbor (Washington) and more…

The Late 1800’s…Science exploration

- Charles Darwin - HMS Beagle
- H.M.S. Challenger expedition
- Marine Labs
- The Sea floor

And then technology…….

- Underwater habitats
- Scuba Diving
- Research vessels
- Submersibles
- ROV’s remote data collection
- AUV’s
The bell…1930’s

Exploration of our oceans

1940’s

Subs…1950’s-now

Underwater habitats: living under the sea

ROV’s… exploring remotely

Scuba diving