

Formation of Earth: Hydrosphere

EQ: Explain how Earth formed bodies of water.

Debates on the origin of water:

1. The water on the planet was delivered by comet/ meteor impacts, since both of these objects contain ice.
2. The water came from chemical reactions within the planet's interior. Once the surface had cooled, water contained in the minerals could escape to the surface, cooled and condensed to form the initial hydrosphere.

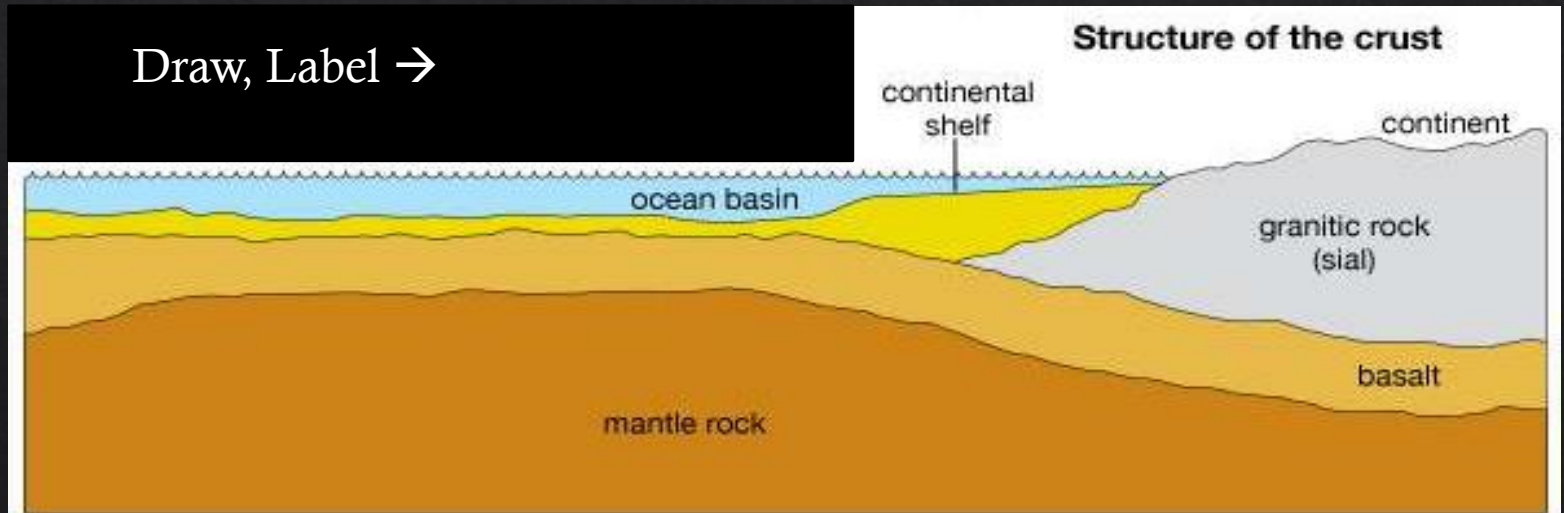


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Oceans were formed:

Early Earth's crust cooled and the water condensed into a body of water. Oceans have been present for at least 3 billion years, so water was able to exist as a liquid.

At the same time, the atmosphere was developing; leading to the necessity of the water cycle.



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Ocean Floors:

Then the acid gases would have reacted with the igneous minerals to form sediments and an initial hydrosphere that was dominated by a hot, salty ocean.

At this stage, the hydrogen chloride would have dissolved in the ocean, also dissolving silica and creating clay minerals that form the sediments of the early ocean basins.

