Khaled bin Sultan Living Oceans Foundation

WATCH IT! BIRTH OF AN ATOLL

INSTRUCTIONS: Watch *Birth of an Atoll* YouTube video (*https://youtu.be/pRD8ZwdPYsY?list=PLlOe1M-r8YbsqPlcBioZc1-tEOMJNh_U_f*) and answer the following questions.

1. Approximately, how long does it take for an atoll to form?

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2. What is a seamount?

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3. Write the steps (in order) for the formation of an atoll.

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4. What happens when there are gaps in the coral rim of an atoll?

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5. What types of reefs can form in the lagoons of atolls? _____

 Name: _____ Date: _____

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VIDEO SCRIPT:

Across the world, from Australia to the shores of Belize, coral reefs come in different shapes and sizes.

One type of reef, most often found in the Pacific Ocean, tells a fascinating story about evolution and geologic time.

It's called an atoll.

When we say time, we mean big time.

It can take up to 30 million years to create an atoll!

Here's how it happens.

An atoll begins with an underwater volcano called a seamount.

As it erupts, it spills lava, which hardens as it meets the water.

Over time, and many eruptions, the seamount grows until it rises above the water.

Now it's officially an island.

As the centuries tick by the volcano goes dormant.

Underwater, the hardened lava becomes a home for all sorts of creatures including corals.

As the corals grow, they form a fringing reef around the island. Fringing reefs grow directly from a shore.

They're the most common type of reefs.

Over time, the reef continues to evolve. The island, this dormant volcano, can start sinking weighed down by the heavy reef and rock.

As the island sinks, the corals remain growing upwards.

Eventually, a wide band of water called a lagoon forms between the reef and the land.

The fringing reef has become a barrier reef.

Millenia keep spinning by.

The extinct volcano is now completely submerged. But the corals are still growing.

As they break the surface of the water, they die and their stony skeletons turn into sand and rubble, mixed with coralline algae.

Now a coral rim surrounds a central lagoon.

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The reef has changed yet again, into an atoll.

When there are gaps in the coral rim, the surrounding ocean flows in and out of the lagoon.

New reefs can form inside the lagoon called patch reefs.

In the warm, shallow lagoon waters of atolls coral reefs flourish.

And so do the many kinds of animals who make them their home.