WHAT is an oasis?

Even the driest deserts—like the Sahara in North Africa—are usually punctuated by natural springs or underground aquifers, which attract vegetation. These oases are a valuable resource for travelers and traders, who can rest in the shade and satisfy their thirst. Since oases are so rare, they're often fought over by neighboring tribes and governments!

HOW is sand made?

Sand is created slowly, over the course of millions of years, by the erosive effects of water as it jostles and tumbles plain, ordinary rocks. It's hard to believe, but most sand grains used to be parts of pebbles, or boulders, or even the sides of cliffs.

HOW do deserts form?

There are three different ways deserts can form, over thousands or millions of years: climate patterns caused by nearby mountains, a persistent lack of vegetation, or high elevations.

In the first case, areas downwind of large mountain ranges receive unusually small amounts of rain. This is because the mountains "lift" the nearby air, causing its moisture to condense and precipitate high up in the atmosphere, from which it never manages to reach land.

Second, deserts can form when large areas of land (located far away from lakes or oceans) are stripped of their trees and plants, either by foraging animals or people harvesting wood. This makes it easier for the sun to evaporate the remaining moisture in the soil, which gradually dries up into sand.

Third, deserts can also occur in high elevations, such as the Tibetan plateau. Most people wouldn't consider this ice-covered wasteland a "desert," but it receives very little precipitation, so technically, that's what it is. In this case, the moisture in the air condenses around the surrounding mountains, leaving the plateau high and dry.

HOW fast does a saguaro grow?

Like most other tree-sized plants—including, well, trees—a Saguaro cactus grows slowly over the course of decades or even centuries. For its first 75 years or so, this desert plant grows straight up out of the ground, then slowly develops its distinctive "buds" that look so unnervingly like human arms from a long way away.