Hawaii is one of the fifty states of the United States of America. It is unique, however, in that it is not part of the U.S. mainland. Hawaii is located in the Pacific Ocean. It is an archipelago, which means that it's made up of a chain of islands. While many U.S. states have islands, Hawaii is the only one that is made up entirely of islands.

With its warm temperatures and beautiful beaches, the Hawaiian Islands are a popular place for vacationers. These islands are also known for a different kind of hotspot - one that comes from deep within the earth. This hotspot helps to explain how the Hawaiian Islands were formed.

Scientists who study the earth, called geologists, believe that the Hawaiian Islands were formed around thirty million years ago. The islands began forming over an area where magma (hot, liquid rock) rose from deep within the earth and onto the floor of the Pacific Ocean. The magma cooled and hardened into a volcanic rock, called lava. Over time, as magma continued to ooze from the earth, the lava built up. Layer after layer accumulated over the hotspot. The layers of lava grew higher and higher, eventually forming a volcano.

Have you ever seen a conveyor belt, like the ones used at grocery stores to move your items toward the cashier? The surface upon which your items are sitting moves under them and takes them to a new place. Now, can you imagine a huge conveyor belt
that slowly relocates a volcano? This is similar to what happened to the volcanoes that formed at the hotspot in the Pacific Ocean. In this case, a large area of the earth's crust, called the Pacific Plate, acted as the conveyor belt. At the same time that the volcanoes were being formed, the ocean floor of the Pacific Plate gradually moved and shifted toward the northwest. This movement of the ocean floor pulled the first volcano away from the hotspot. Magma continued to ooze from the hotspot, cooled and hardened, and formed a new volcano above it. This process repeated itself over and over for millions of years, creating a string of volcanoes that each, in turn, appeared above the surface of the ocean, forming what we now call the Hawaiian Islands.

It's very difficult to imagine that millions of years ago, Hawaii as we know it now did not even exist! Geologists know that the Hawaiian Islands continue to gradually change, even today. This is due to gradually change, even today. This is due to gradually change, even today. This is due to gradually change, even today. This is due to gradually change, even today. This means that millions of years into the future, Hawaii may look entirely different than it does today. It is even possible that the Hawaiian Islands could even disappear completely over time. In fact, geologists predict that the Hawaiian Islands would take millions of years to disappear completely. Of course, these types of extreme changes would take millions of years. So, in the meantime, let's continue to enjoy the "hotspot" of Hawaii just as it is - a gorgeous archipelago with an interesting history and one of the most beautiful places on earth!
The Formation of the Hawaiian Islands

1) Why are the Hawaiian Islands unique?

2) What are the two different contexts the word “hotspot” is used in the passage?

3) What is the extreme future change the writer refers to in the last paragraph?

4) Why are the Pacific plates compared to the conveyor belt?

5) What does the author encourage readers to do in the final paragraph?
The Formation of the Hawaiian Islands

1) Why are the Hawaiian Islands unique?

The Hawaiian islands are not a part of the U.S. mainland. They are located in the Pacific Ocean and are made up entirely of islands.

2) What are the two different contexts the word “hotspot” is used in the passage?

Hotspot: A popular place for vacation.

Hotspot: The area where magma rose from the deep earth onto the floor of the Pacific Ocean forming the Hawaiian Islands.

3) What is the extreme future change the writer refers to in the last paragraph?

That the Hawaiian islands might disappear altogether is the extreme change referred to here.

4) Why are the Pacific plates compared to the conveyor belt?

Just as the conveyor belt moves things, the Pacific plates have been relocating the volcanoes creating new ones in their place forming the chain of Hawaiian Islands.

5) What does the author encourage readers to do in the final paragraph?

The author wants the readers not to worry about the changes that might take place to Hawaiian in the future, and just continue to enjoy the beautiful place as it is.