

Kupe and the Corals

Just imagine...thousands of miles of deep blue ocean...and scattered throughout those waters are thousands of small spots of land, islands formed by fiery volcanos deep below the surface of the water. This is the story of one of those islands, Mo'orea, and one 9 year old boy who lived there, Kupe.

Kupe lived on Mo'orea in a small village with his parents and his little sister Pallila. He loved his life on the island. He went to school with his friends, Manu and Kana and they spent almost every day on the beach together. They chased each other along the sand, searched for shells along the shore and swam in the lagoon. But their favorite activity was to put on their snorkeling masks and explore the coral reef that surrounded the entire island. As they floated on top of the water, they became part of another world filled with countless fish of all sizes, shapes and colors, some were eating the tiny organisms that hovered above the corals, and some were swimming in and out of the coral columns looking for protection from predators. The boys sometimes saw the crabs that used the corals as their home and sea turtles who glided gracefully through the water looking for something to eat. The corals themselves looked like colorful, inanimate structures that formed the shelf-like reef, some tall and thin, some flat and round, but each coral was actually alive. The coral reef was a living underwater ecosystem. To Kupe and his friends, it was paradise.

One afternoon when Kupe returned home, his father asked him, "Kupe, would you like to go out fishing with me tonight. It's a beautiful, clear night, so we will be able to catch lots of fish. I could use your help and your company."

"Yes, yes, yes" replied Kupe. "I can't wait."

Soon, Kupe and his father were in the family fishing boat. It wasn't a very big or fancy boat, but it was just right for the two of them. They headed out into the calm ocean waters. The stars were brighter than Kupe had ever seen. He could not take his eyes from them. His father noticed his starrng and said, "Those are the same stars that guided our ancestors to Mo'orea many many generations ago."

"But where did they came from and how did they get here?" asked Kupe.

"They came from other islands far, far away in small boats...maybe not much bigger than ours. They used the stars above them as their guide, their map, and also used the currents of the ocean below them. At that time, our people did not go to a school like you do, Kupe, but they did know how to use the earth, the sky and the sea. They covered thousands of miles using that knowledge. Can you imagine doing that?" his father asked.

Kupe couldn't imagine that and he wanted to hear more stories, but suddenly he heard a loud noise and it got louder and louder. The water all around their boat was suddenly gurgling and churning around, filled with tiny and colorful bubbles all rising to the surface.

Kupe asked "What is happening, father?"

Before his father could answer, Kupe saw lots of tiny colorful fish swimming up to the surface of the water too. The fish were trying to eat the bubbles, but the bubbles were swiftly drifting away.

"Father, what is going on? Kupe asked again. "Is it something magical?"

“Not exactly magical,” he replied, “ but it is phenomenal. These colorful bubbles put on a show like this only once a year. We are lucky to be here tonight in order to see it.”

Kupe wanted to have a closer view, so he leaned over the side of the boat with a cup in his hand and captured some of the floating bubbles. “I’m going to take them home. Pallila won’t believe it.”

Soon the fishermen arrived home again and Pallila was indeed very excited when Kupe showed her the contents of the cup.

“Kupe has brought home magic bubbles from the sea. Can I keep them, can I, can I, can I?” Pallila yelled as she jumped up and down excitedly.

“Well, that’s what I thought they were too, but now I’m not so sure...and no, you can’t have them.” Kupe answered his sister. “I need to find out what they really are, but I’m not sure how to do that.”

His mother then entered the conversation. “You should take the cup of water to the Atilia Community Center. I bet one of the elders there can help. You can go in the morning.”

Kupe went to bed and carefully placed his valuable cup on the table. Although his mind was full of ideas about what he would learn the next day about his magic bubbles, he quickly fell asleep.

The next day, when he looked into the cup, the bubbles looked a lot different. They were much smaller and weren’t floating on the top of the water anymore but had sunk to the bottom of the cup.

“I’d better hurry before they disappear” he thought to himself and quickly left his house. He ran all the way to the the Community Center.

Outside of the Center, he met an old man, one of the elders of the town, whom Kupe knew. “Why are you here...what do you have in that cup, Kupe?” he asked.

Kupe explained, speaking very quickly, what he and his father had experienced the night before on the boat. “And then, these bubbles came up to the top of the water and then more and more and more came up...and then I swooshed some into a cup and took them home, and they’re getting smaller and smaller, and I don’t know...maybe they’re magic, maybe they will disappear...do you know what they are...do you even believe my story?”

The Elder laughed a bit and then replied, “Yes, I do believe you, but No, they aren’t magic at all. What you and your father witnessed were the corals on the reef releasing their young”

“Do you mean, these are coral babies? Kupe asked with his mouth and eyes wide open.

“Yes, they were released by their parents last night. Those coral babies then drift along the water until they find a good place to live. Some of them don’t make it far. There are always plenty of fish who wait all year for some tasty baby coral snacks.” Kupe made a face at that, but the old man just chuckled and continued “If you are really interested in the rest of the story, you should go to the Oceanic Research Facility. That’s where there are scientists and students who study all sorts of ocean creatures. It’s not far from here...just go down that way. You can’t miss it.”

Kupe immediately left and found the Oceanic Research Center just where the old man had shown him. The first thing he saw was an outdoor lab and a young woman standing over a table full of microscopes, flasks and test tubes...and lots of papers and charts. She introduced herself as Dr. Hauata. Kupe

repeated his story to Dr Hauata but a little more slowly than before. She knew all about what he had seen the night before and about what he had in the cup.

“Would you like to see the coral babies that you saved? We scientists call the coral embryos? They first float around like bubbles in the ocean. Did they look more like bubbles last night?” she asked Kupe. He nodded

“Well, those bubbles came together; they formed a larva. That’s why they look different. They look like this until they find a place to settle and then they will change form again. Soon they will look like little corals. Would you like to look at your coral larvae under the microscope?”

Again, Kupe nodded. The doctor transferred the baby, oops I mean coral larvae, to a shallow dish and then placed it under the microscope’s lens.”

“They are so beautiful and colorful and they are swimming...in different directions at the same time. How do they do that? Oh, I see, they each have at least two different shapes.”

Dr. Hauata agreed, “It is amazing isn’t it. They will look like this until they find a place to settle. They’ll change forms again and will look like corals. They continue to grow and soon other juvenile corals join onto them...and eventually they form a coral column like you see on the reef. Pretty cool.”

“Very cool” replied Kupe.

“Corals are not just pretty and very cool,” Dr. Hauata continued, “but they are important to all of us, because they are important to the entire ocean environment. So many marine creatures depend upon the corals for food and shelter. If the corals die, so do all those fish and other organisms.”

“But why would they die?” ask a now very serious Kupe

“Corals must have clean water in which to survive. If the water isn’t clean, they cannot grow. Corals must continually grow or else they die. The oceans of the world are becoming more polluted every day by chemical and physical trash that goes into the water from non-caring industries and careless individuals...even sunscreen worn by the tourists who want to snorkel and see the beauty of the reefs unknowingly pollute the water. Sadly, we are losing more and more of our coral reefs every year.”

“Can we do anything to stop this pollution?” asked Kupe.

“Yes, but it’s up to all of us to make everyone aware of the situation and to convince the polluters to stop for the good of the entire earth. You can help too, Kupe, even though you are very young. Help us spread the word among your friends and their parents. Our islanders have great respect for our ocean but others who merely use the ocean for their own gain and for their own enjoyment must get the information too. I think we can do it, don’t you, Kupe?”

“I think we can too. I want to start by putting my corals back into the ocean so they can find that good, clean water. Would you help me?” Kupe said with enthusiasm. Dr. Hauata smiled and nodded.

They took the cup and walked to the end of the pier. Kupe poured the cup of water with its precious and very important contents into the ocean waves. He was a bit sad to see them go, but he was proud to know he was helping the ocean environment...just watching his bubbles float away made him smile. Maybe they were a little bit magical after all.

Lesson Plans for Hands-On: Polynesia Theater segment.

The main story line of this year's theater presentation relates the story of a 9 year old boy who lives on a South Pacific Island and learns first-hand about the importance of protecting our world's ocean environment. The play is based on the book *Kupe and the Corals* written by Jacqueline L. Padilla-Gamino. The accompanying script was written and narrated by Sharon Bell and was filmed on stage at the Cultural Activities Center using students from St. Mary's Catholic School and members of the Unincluded Club in Temple, Texas.

Listed below are suggestions for the utilization of the play within a classroom or home setting.

3rd-grade TEKS for Science:

(9) Organisms and environments. The student knows and can describe patterns, cycles, systems, and relationships within the environments. The student is expected to:

- (A) observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem;
- (B) identify and describe the flow of energy in a food chain and predict how changes in a food chain affect the ecosystem such as removal of frogs from a pond or bees from a field;
- (C) describe environmental changes such as floods and droughts where some organisms thrive and others perish or move to new locations.

(10) Organisms and environments. The student knows that organisms undergo similar life processes and have structures that help them survive within their environments. The student is expected to:

- (A) explore how structures and functions of plants and animals allow them to survive in a particular environment; and
- (B) investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles such as tomato plants, frogs, and lady beetles.

Here are two optional instructional plans:

I. Watch the presentation with your students.

- A) Ask the students questions regarding the content of the script.

Examples:

Where did Kupe live?

What type of activities did he and his friends enjoy? What was their favorite?

What type of sea creatures did they see along the coral reef?

When did Kupe and his father go fishing?

What did Kupe's ancestors use to guide their boats?

What surprising event happened while Kupe was fishing?

What did you think the little bubbles were?

To whom did Kupe first go to find out about those bubbles?

What is the scientific name for the bubbles?

What is necessary for corals to grow in the ocean?

What pollutes the ocean waters?

What did Kupe do to help save his corals?

- B) Ask the students personal questions in order to engage them in discussions.

Examples:

Would you like to live on an island? Why or why not?
Have you ever been snorkeling? If so, what did you see? If not, would you like to go? What would you like to see? What is your favorite sea creature?
Do you think you could learn how to find an island in the middle of the ocean just using the stars and the ocean currents? How do you find a new place you have never been?
Kupe went to the Community Center and told his story to one of the elders. Why? Do you ever ask an older person to help you learn about something you don't understand?
Why do you think the coral reefs are so important?
Could you do something to help save our oceans?

II. Allow the students to act the play out themselves. Staging directions are included on the written script.

- A. You will need to assign parts. You can use just the audio portion of the script and ask the students to "act out" what they hear as the children did on the video. The "actors" will not need to speak but merely express what they are hearing, somewhat like a mime. You can also ask the students to read their part and actually act it out using their actions and their words. There are the following parts: Kupe, his father, his mother his little sister, his two friends, the village elder, Dr. Hauata. Although puppets were used in the video, children can pretend to be the sea creatures or can draw/color various types of fish, crabs, turtles, eels, even sharks, etc.
- B. Through acting out a play, students can also learn about the technical parts of the theater. How do the lighting and sound effects affect the scenes?
Why is staging important?
- C. Costuming and props are important in theater and can be lots of fun to make, but they aren't absolutely necessary. Ordinary items within the classroom or home can be transformed with a little imagination and as we all know, a child's imagination is limitless.

A possible third option is to have the students read the script aloud as a reading project.

We had a great time presenting this year's play and hope you and your students will enjoy it too.