



LIFE AT THE ROYAL GROUNDS



ALI'I LIVED in the Royal Grounds and ruled over the land for hundreds of years. Guided by the gods and their *mana* (spiritual power), the *ali'i* bloodline continued from one generation to the next one. From birth the *ali'i* were revered and prepared for their future roles as leaders and spent many hours each day perfecting warrior and leadership skills.

Some of the activities for the young *ali'i* were playing games like *moa pahe'e*, wooden darts; *'ula maika*, bowling to build eye and hand coordination. *Kōnane*, similar to checkers, would develop mental skills needed for war strategies. They also practiced *'ō'ō ihe* (spear throwing) and *uma* (hand wrestling) for strength in preparation for war.

HE LIKO ALI'I, A ROYAL LEAF BUD (REFERS TO A CHILD OF A CHIEF)

—'ŌLELO NO'EAU, 764

MOA PAHE'E



KŌNANE



'ULU MAIKA



Ask the park ranger which activity is available today.

1.

Name of the game you participated in: _____

2.

Name a game you may already know that is similar to this one: _____

How is it similar? _____

3.

Describe a mental or physical skill you learned from today's game that could help you become a strong *ali'i*.



PU'UHONUA AND THE KAPU SYSTEM

PU'UHONUA IS A PLACE OF REFUGE that was set aside by the *ali'i* as a sanctuary for people who broke the laws of a system called kapu. At one time, there were as many as ten *pu'uhonua* on Hawai'i Island. *Pu'uhonua* were also places where women, children, the elderly and defeated warriors could seek safety during times of war.

Kapu directed every aspect of life in Hawai'i. These rules were important to maintain order in a community and be in good favor with the gods and *ali'i*. It was kapu for commoners to have contact with the *ali'i*. Men and women could not eat meals together. Some foods, like pork and bananas, were *kapu* to women. Stealing and murder were of course *kapu*. There were even conservation kapu that would protect a fish species during its spawning season when it lays eggs.

Breaking a *kapu* (rule) could mean certain death or severe punishment, but if a *kapu* breaker could seek refuge at a *pu'uhonua*, rituals would be performed by the *kahuna* (priest) to pardon their wrong doings. *Kapu* breakers, traveling on foot or by sea, faced many dangers before safely reaching the *pu'uhonua*. They would have to run over miles of rough lava and then swim across the waters of Hōnaunau Bay, all without being caught or killed by their accuser.



1.

If you are in danger and your parents are not around, where could you seek refuge?

2.

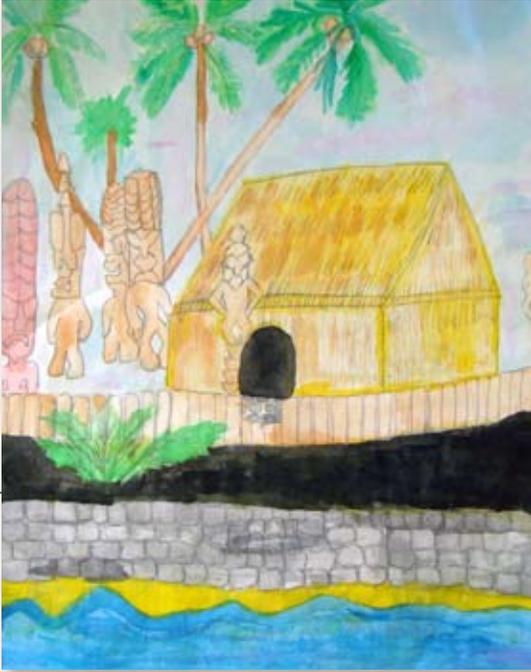
Think of "safe places" today that may be thought of as a *pu'uhonua*? List as many as possible:

3.

Name three things that are kapu at your school.



HALE O KEAWE



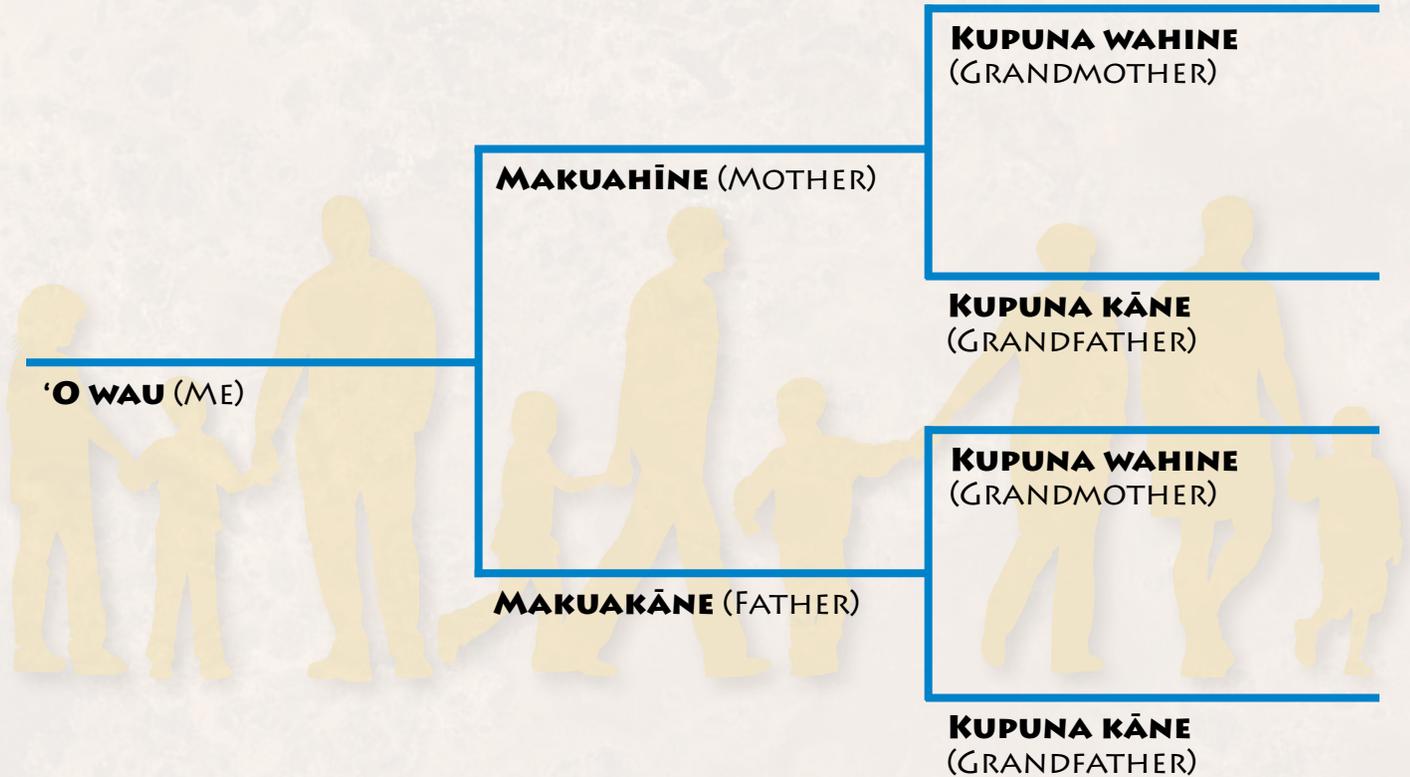
WATCHFUL KI'I (WOODEN IMAGES OF THE GODS) stand guard over this *heiau*, or temple. *Hale o Keawe* once held the bones of 23 chiefs of the Keawe family, which goes back hundreds of years. The *mana* (spiritual power) of the remains made this place sacred.

Today, *Hale o Keawe* is still an important place where some Hawaiians honor their ancestors. Without a written language, they passed down their *mo'okū'auhau* (genealogy - the family line they came from) by reciting generation after generation of family names through chant and song.

Many cultures, including Hawaiians, believe it is important to remember and honor their ancestors to preserve and perpetuate their heritage.

Mo'okū'auhau: How many generations of your ancestors can you recite? To help you get started, fill in this three generation chart.

DENISE KAUAHI-HIGA | WAIKOLOA



Who is the earliest ancestor in your family tree that you know of? Tell what you know about this person's life?



TREASURE TROVE

EXPLORING the Hawai'i Volcanoes National Park official brochure is like a real treasure hunt! Use it to find vast riches of helpful and interesting facts about the world's most active volcanoes and the incredible landscapes surrounding them. It's fun, it's easy, and it's a great way to start your visit as you hunt for Junior Ranger treasures.

Start with the side of the brochure titled Visiting Hawai'i Volcanoes.

1 ■ Look at the top map and the map key at the bottom to answer these questions:
Draw the symbols for: hiking trails _____ picnic area _____ drinking water _____

2 ■ What is the traditional Hawaiian name for Thurston Lava Tube? _____

3 ■ Exploring the Park: One important safety tip is _____

Is it OK to feed the Nēnē (Hawaiian Goose)? Circle **YES** or **NO**

Why or why not? _____

4 ■ Look at the bottom map to answer these questions:

What road would you take to see the Holei Sea Arch? _____

How long is the trail to the Pu'uloa Petroglyphs? _____ Miles

Now, flip over to the reverse side of the brochure!

5 ■ Volcanoes Are Monuments to Earth's Origins: Mauna Loa, if measured from its base on the seafloor, is _____ ft. tall which makes it _____ feet taller than Mount Everest!

6 ■ Trouble in Paradise: Using the chart below the artist's picture, name 3 alien species that could harm the park's native species.



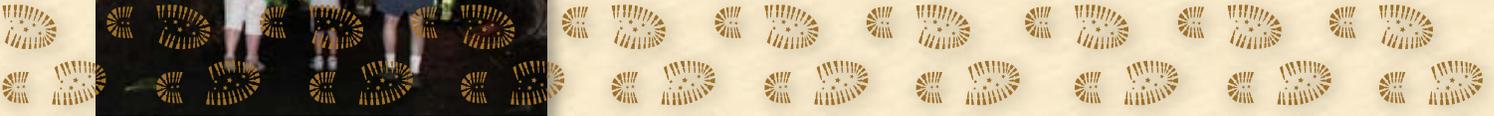
WANT TO DISCOVER MORE? VISIT THE KILAUEA VISITOR CENTER FOR GREAT INTER-ACTIVE DISPLAYS—A TREASURE TROVE OF INFORMATION! DON'T FORGET TO CHECK OUT THE PARK'S BOOKSTORES OR VISIT THEM ONLINE AT HAWAIIINATURALHISTORY.ORG



TAKE A HIKE



THIS ACTIVITY is all about getting out there! Choose a ranger-led hike or program listed on the **bulletin board** just outside the Kilauea Visitor Center OR take a hike on one of Hawai'i Volcanoes' many trails and explore with your family. Need help deciding which trail to hike? Look in the park brochure to find trail information.



- What hike or program did you choose? _____
- Circle which one applies: **This hike was ranger-led** OR **This hike was family-led**
- Describe two new things you learned about Hawai'i Volcanoes National Park during your hike or program:
 1. _____
 2. _____

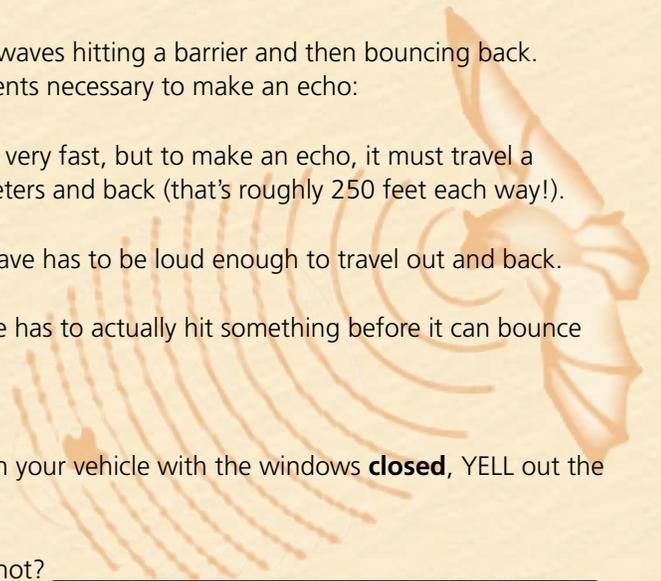
ECHO CRATER



IN THIS ADVENTURE, you'll get to yell as loud as you want into a pit crater! But first, let's learn what causes echoes and then find out what **echoes** and **bats** have in common.

Echoes are caused by sound waves hitting a barrier and then bouncing back. There are three basic ingredients necessary to make an echo:

1. **Distance**—Sound travels very fast, but to make an echo, it must travel a distance of at least 75 meters and back (that's roughly 250 feet each way!).
2. **Loudness**—the sound wave has to be loud enough to travel out and back.
3. **Barrier**—The sound wave has to actually hit something before it can bounce back to you.



ACTIVITY 1

Travel to Puhimau Crater Overlook on the Chain of Craters Road. While in your vehicle with the windows **closed**, YELL out the word **echo** (*warn your family first!*), then listen carefully.

Did you hear your voice echo back to you? _____ Why or why not? _____

ACTIVITY 2

Now, walk to the overlook and YELL out a few words out across the crater (words to try: your name, aloha, lava). Which words worked best?

Explain why echoes work so well here: _____



THE ENDANGERED 'ŌPE'A PE'A (Hawaiian Hoary bats) use echoes to navigate their way through the night sky making high-pitched squeaks. This process, known as echo-location, helps bats locate food and avoid obstacles.



CAMERA CAPER



REGAN STRADTMANN-CARVALHO | VOLCANO, PUNA

TRAVEL TO Jaggar Museum to create a digital diary that shows how legends and stories help connect Hawaiian culture to science. Share your photos with the ranger at the Kīlauea Visitor Center when you are ready to receive your Junior Ranger badge!



MICHAEL LARSON

NOW, GET YOUR CAMERA READY, GET SET, AND GO!

1. Mo'olelo are traditional stories of Hawai'i. Some of them explain historic events that link geological evidence at Kīlauea, the sacred home of Pele, the goddess of the volcano. Locate the large mural called "Pantheon of Volcano Spirits." Search for the older brother of Pele who helped guide her to Hawai'i. Take a picture of this favorite brother, then write his name and what he represents below.

2. Find the display that tells how "Pele searches for a home." When Pele attempted to build a home for her family, her sister Na Maka o Kaha'i kept putting out her fires. Her sister was able to do this because she is the goddess of the _____. Locate and photograph the display that shows the geological explanation of how the islands of Hawai'i were formed. (Hint: hot spot)
3. This museum is named after _____ who is notable because he _____. Find a photo of him and add the image to your digital diary!
4. Go to the glass wall displaying a row of seismographs. What do they measure? _____

To your right is a seismograph you can use to record your own seismic activity. Have a family member take a photo of you making your own earthquake! Seismographs are very sensitive, so be gentle when jumping up and down!
5. Walk outside to the overlook and view Palikapuokamohoali'i, the sacred cliff of Kamohoali'i. Click a picture of Kīlauea Caldera and Halema'uma'u Crater, the home of Pele. What story is your photo telling?

DID YOU KNOW ?

TAKING PICTURES IN A NATIONAL PARK is great fun, but taking things like rocks, leaves, flowers, is not allowed.





WEAVING SCIENCE AND CULTURE



DESTINY KAUAHI-HIGA | WAIKOLOA, KONA

Some *mo'olelo* speak of the relationships between Pele, other gods and humans. Some show us how the early Hawaiians may have viewed living on an active volcano. According to these stories as well as *oli*, chants and *hula*, dances, the entire volcanic landscape is the handiwork of Pele.

**“SHE STAMPS HER FEET AND THE LAND TREMBLES;
THE SKY IS AFIRE WITH A CRIMSON GLOW AS HER MOLTEN
BODY MOVES ACROSS THE LAND. THOSE PRESENT WHISPER IN
AWE, ‘AE, ‘AIA LA O PELE, THERE IS PELE.’”**

The hula chant above describes Pele and her home at Kīlauea. It paints an artistic picture of eruption activity. According to Hawaiian Volcanoes Observatory scientist, Don Swanson, “the geological evidence that we see today, links to the stories told by the Hawaiian people about historical eruptions.” Write which scientific occurrence you think the *oli* describes:

She stamps her feet and the earth trembles. _____

Her molten body moves across the land. _____

HOW THE ‘ŌHI‘A LEHUA TREE CAME TO BE

One story tells about ‘Ōhi‘a, a handsome man who rejected a marriage proposal from Pele because he was in love with Lehua. In her jealous wrath, Pele turned him into a gnarly old tree. Lehua searched everywhere for ‘Ōhi‘a and wept when she could not find him. Out of compassion, the gods changed Lehua into a red blossom and placed her on the tree where they remain together. Look for them in the rainforest as you travel through the park!



HERB KANE

PELE AND KAMAPUA‘A

One translation for Halema‘uma‘u is “house of the ‘ama‘u fern.” Kamapua‘a, the pig god, who could also be a man, came to Kīlauea to propose marriage to Pele. She rejected his love and cried out at him, “‘A‘ohe ‘oe kanaka, he pua‘a ‘oe” (you are not a man, you are a pig!). In their anger, a battle started—Pele hurled fire and molten lava at him while he brought down torrential rains to douse her fires. Finally, Kamapua‘a turned himself into the ‘ama‘u fern and surrounded Kīlauea. As he did, her fires scorched him. Even today, some of the new fronds appear red on the ‘ama‘u fern, reminding us of the battle between Pele and Kamapua‘a.

Many cultures have traditional stories like *mo‘olelo* that describe natural occurrences. Can you and your family think of one you have heard about? Write a sentence to tell about your story.



MANY SPECIES OF PLANTS AND BIRDS in Hawai‘i are rare and endangered. To learn more about them, visit the park's bookstores.



BE A SAFETY SLEUTH



VOLCANIC HAZARDS can present life-threatening problems in many ways. Dangerous situations can occur here in the park if you don't know what to be aware of. Rough terrain and volcanic gases can be hazardous to your health!

Circle all of the items you need for a safe visit hiking in the park or going to the eruption viewing area.



BINGO BLITZ

COMPLETE one down row, one across row or one diagonal row by filling in appropriate information.

While exploring in Hawai'i Volcanoes National Park, my family and I:

Picked up trash at:	Saw a movie at the visitor center called:	Saw a native bird called a/an:	Hiked a trail named:
Protected the landscape by:	Used an environmentally safe water bottle to refill at:	Recycled a can or bottle in marked bins at:	Visited Nāhuku lava tube and noticed:
Used sunscreen for protection while hiking: YES or NO	Picked up more trash at:	Visited Jaggar Museum where I discovered:	Discovered a safety sign that said:
Drank lots of water to keep healthy and hydrated. YES or NO	Discovered a safety sign that said:	Were careful when crossing the road at:	Recycled a can or bottle in marked bins at:





JOIN THE GREEN TEAM: MĀLAMA 'ĀINA



SKYLA LEE | VOLCANO

HAWAI'I VOLCANOES NATIONAL PARK is home to some of the rarest plants and animals, as well as unique volcanic landscapes. Your *kuleana* (responsibility), as a Junior Ranger is to *kōkua mālama 'āina* (help take care of the land). Our actions today affect the consequences we will face tomorrow. **Climate change** could heighten these consequences. So you can *kōkua* by leaving Hawaiian plants, animals, and landscapes alone. About 2 million people visit Hawai'i Volcanoes each year. Even little changes made by each visitor can make a big impact all together.

Draw or describe the impacts these changes would make at a special place like this.

JUST IMAGINE WHAT WOULD HAPPEN?

If each park visitor **picked an 'ōhi'a lehua blossom . . .**

x 2 million visitors



RAJILEEN CARLOS | KEA'AU

Solution

If each park visitor **didn't recycle cans and bottles . . .**

x 2 million visitors



Solution

If each park visitor **fed the Nēnē geese along the roadside . . .**

x 2 million visitors



GINA MCGUIRE | MOUNTAIN VIEW

Solution

If each park visitor **arrived in the park using a petroleum fueled vehicle . . .**

x 2 million visitors



Solution



ALA KAHAKAI NATIONAL HISTORIC TRAIL

This national historic trail is a 175-mile long trail system connecting much of the coastal areas around Hawai'i Island. It traverses through hundreds of ancient Hawaiian settlement sites and magnificent natural resources. Ala Kahakai means "path by the sea." When these historic trails were created, they were the only means of overland travel and connected people who otherwise might have been very isolated.

Segments of the old trail can be easily accessed at **Pu'uhonua o Hōnaunau National Historical Park**, **Kaloko-Honokōhau National Historical Park**, and **Pu'ukoholā Heiau National Historic Site**.



To earn a badge for this park unit, ask for trail information at one of the parks listed above, hike an Ala Kahakai Trail section and then answer these questions.

1. Which park's trail system did you choose to hike?

2. Imagine yourself traveling on this trail hundreds of years ago. What do you think would make the trip difficult?

WRITTEN IN STONE: STORIES OF THE PAST

Ki'i pōhaku or petroglyphs are images carved into the rock and are found throughout Hawai'i. They are also found in many other places around the world and tell us stories about the cultures and people who created them. They recorded in stone what the people valued and how they lived.

Here are some examples of some ki'i pōhaku seen on Hawai'i island. Match each to a possible meaning by drawing a line from the petroglyph image to a name.



HULA DANCER RUNNING MAN RAINBOW MAN SURFER FISHERMAN FAMILY MARCHERS CANOE TURTLE



WANT TO DISCOVER MORE? . . . GO SEE THE PETROGLYPHS AT HAWAI'I VOLCANOES NATIONAL PARK, PU'UHONUA O HŌNAUNAU NATIONAL HISTORICAL PARK, AND KALOKO-HONOKŌHAU NATIONAL HISTORICAL PARK.



Hawai'i Island JUNIOR RANGER PROGRAM

THIS CERTIFIES THAT

IS A JUNIOR RANGER AT:

**Ala Kahakai
National Historic Trail**

Official Stamp

Ranger Initials | Date

**Hawai'i Volcanoes
National Park**

Official Stamp

Ranger Initials | Date

**Kaloko-Honokōhau
National Historical Park**

Official Stamp

Ranger Initials | Date

**Pu'uhonua o Hōnaunau
National Historical Park**

Official Stamp

Ranger Initials | Date

**Pu'ukoholā Heiau
National Historic Site**

Official Stamp

Ranger Initials | Date

JUNIOR RANGER _____

DATE _____





GRAND PRIZE | **CHEVIS MARQUES**
KEA'AU, PUNA



DENISE KAUAHI-HIGA
WAIKOLOA, KONA



GINA MCGUIRE
MOUNTAIN VIEW, PUNA



HAILEY ROSARIO
HILO



KA'ULA TRINGALI
HILO



JULIA ENUTON
KAILUA-KONA



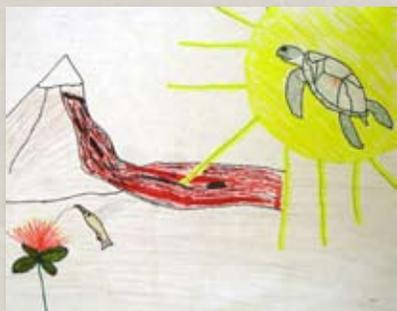
REGAN STRADTMANN-CARVALHO
VOLCANO, PUNA



RAJLEEN CARLOS
KEA'AU, PUNA



SKYLA LEE
VOLCANO, PUNA



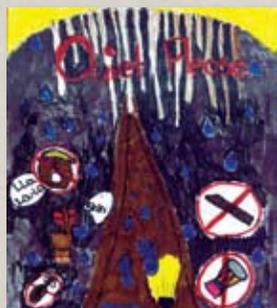
ANTHONY ROSARIO
HILO



ASHLYN REESE
KEA'AU, PUNA



ADDISON REESE
KEA'AU, PUNA



HANNAH WORLEY
ALABAMA



DESTINY KAUAHI-HIGA
WAIKOLOA, KONA



AIMEE SHIRAKI
KEALAKEKUA, KONA

