



SUMMER LUAU Homeschool Lesson Plan

Overview

Raddish is designed by a dedicated team of teachers and chefs who believe the kitchen classroom is the tastiest place to learn. We love watching learning come alive when kids mix math, stir science, and taste culture!

Paired with the materials found in your SUMMER LUAU box, this lesson plan divides your box into three 45-90 minute lessons. You can use these lessons for students from pre-K – middle school and adapt them to suit your needs. Depending on your timeframe, child's age, and their engagement, these lessons can be taught together or separated.

Please refer to the curriculum provided in your box: recipe guides, activity card, and introduction card.

Happy cooking! Happy learning!



Lesson #1: ISLAND CHICKEN SALAD
& HULA HISTORY
Activity Time: 45 minutes

LEARNING OUTCOMES

- Students will **watch** videos of Hawaiian hula dancing and **discuss** what they think the dance is about.
- Students will **explore** how dance is used to tell stories.
- Students will **learn** what pantomime is, **practice** it, and **apply** that understanding to Hawaiian hula dance.
- Students will **develop** skills in communicating through physical movement
- Students will **learn** about the history of Hawaiian hula dance.
- Students will **use infographics, written explanations, and video** to learn some hula dance moves.
- Students will learn a traditional hula dance or **choreograph** their own.
- Students will **read** and **practice** with **Featured Culinary Skill - Kitchen Cleanliness**.
- Students will **make** and **share** Island Chicken Salad.



HULA HISTORY

Notes for the Teacher:

- During the activity, students will have the opportunity to interact with the learning materials in a few different ways: written explanation, infographic, and video. After each experience you will ask them how it worked for them. After all three experiences, they will evaluate what method of learning worked best for them.
 - This is an opportunity for you to assess their preferred learning styles which can help direct your teaching in the future.
- This lesson discusses dates in history and uses the abbreviations CE and BCE.
 - In history, we use dates to help us find cause-and-effect relationships between human actions. Later actions cannot influence earlier actions, so if we know which thing came first, we can rule out the later one as a cause of the earlier one. However, just because something occurred first, does not mean that it influences everything that followed.
 - CE (Common Era) and BCE (Before Common Era)
 - Since there is no agreement on when time began, Christian Europeans adopted the convention of recording dates in terms of whether they occurred before or after the beginning of the year of the birth of Jesus Christ. Christians assign the YEAR ONE to the year of Jesus' birth. Muslims do the same thing, only they use the year of Mohammed's return to Mecca. Historians believe that Europeans of the Middle Age got the date of Jesus' birth wrong, but nevertheless, we continue to use the system they devised.
 - The abbreviations BCE and CE have replaced BC (Before Christ) and AD (Anno Domini; i.e. "Year of our Lord") respectively.
 - Assuming that our starting point is the YEAR ONE (there is no YEAR ZERO), then BCE is the abbreviation used for years that occurred before the YEAR ONE. CE is used on all dates starting with YEAR ONE.

Teacher Prep:

- **Collect Materials:**
 - Recipe Guide, tools and ingredients listed
 - Traditional Hawaiian Hula Dance Moves (included)
 - Hawaiian hula music
- **Watch**
 - Hula- National Geographic (2:49) <https://www.youtube.com/watch?v=yXtQNVXNu-A>
 - Tells the history of hula and shows modern day competition. **Please watch this video before showing it to your students to be sure that you are comfortable with the costumes.**



LESSON: HULA HISTORY & HOW TO HULA

- INTRODUCTION: Pantomime and Hula
 - **Stand** in front of your students and **tell** them that you are going to "speak" to them without using any words.
 - **Tell** them that you will **point** to someone who should tell what you are "saying" or feeling.
 - **Wave** to the students with a **smile** on your face. **Point** to a student. (The student could say "hello.").
 - **Frown** and **pretend** to cry. **Point** to a student. (The student could say "I'm sad.")
 - **Furrow** your brow and **fold** your arms. **Point** to a student. (The student could say "I'm angry.")
 - **Tell** the students that you are going to **pretend** to do something. They must **guess** what you are trying to communicate.
 - **Pantomime** the process of getting into a car, starting it, and driving it. When you have finished, **ask** the students to explain what you were doing.
 - **Explain** to the students that you are doing something called *pantomime*.
 - Tell students: *Pantomime* is a way to **communicate without using words**. Instead, you use your face and your body to help **show actions, thoughts, or feelings**.
 - **Tell** the students that now it is their turn to do a pantomime.
 - Have them get up and start **moving** by walking around the room. Tell them to **pretend** that they are walking to school.
 - Next, give the students the following **prompts**. (Give them about a minute to adjust to each new scenario):
 - You are walking to school in the pouring rain.
 - You are walking to school after a big snowstorm, and there is a foot of snow on the ground.
 - You stayed up late, so you are very tired when you are walking to school.
 - It is the last day of school, and you can't wait to get there.
 - **Ask:**
 - What things did you do to show the different situations?
 - How did they change their body movements to show that they were walking through snow? To show that they were tired?
 - Do you think it would be possible to tell an entire story without words?
 - Share: Today we are going to **learn** about Hawaiian hula dance and that it is a tradition that uses pantomime to tell a story.



- **BACKGROUND INFORMATION: Hula History and Dance Moves**
 - **Share:** Hula dancing is a beautiful and graceful form of dance that combines foot movements along with meaningful hand movements to tell a story.
 - Watch a video of Hawaiian hula dancing. Below are a few options:
 - Hula- National Geographic (2:49)
<https://www.youtube.com/watch?v=yXtQNVXNu-A>
Tells the history of hula and shows modern day competition. **Please watch this video before showing it to your students to be sure that you are comfortable with the costumes.**
 - Telling Warrior Stories with Hula (3:20) <https://www.youtube.com/watch?v=BFT-MI8N2A4>
Hula from the male perspective
 - After watching one or more videos of Hawaiian hula dancing, **ask** your students:
 - What do you notice about the moves the dancers are making?
 - What emotions do you think the dancers are feeling? What does it make you feel?
 - What parts of the body do they use the most?
 - How is the hula dancing similar and/or different from the pantomime we did earlier?
 - **Share:** There are two types of Hawaiian hula dance: **hula kahiko** and **hula 'auana**
 - **Hula Kahiko** is the traditional style of hula that includes chanting and percussion (drum) instruments.
 - In ancient Hawaiian times there was no written account of daily life, so Hawaiians created hula dances and chants as ways to document and pass on the stories and events of their people going back as far as the first inhabitants of the Hawaiian Islands 0-500 CE.
 - This style of hula was how the people of that time communicated with and honored the Hawaiian Gods by sharing stories about Hawaiian life, history, and culture.
 - In 1830, Western missionaries came to the Hawaiian islands and thought that hula was immoral. They convinced the Hawaiian Queen Ka'ahumanu to outlaw hula and the speaking of the Hawaiian language. However, many Hawaiian chiefs did not agree, so hula and speaking the Hawaiian language continued to be practiced in secret.
 - The Hawaiian King David Kalakaua supported hula dancing and saved it as an art form and part of cultural history. In 1883, at his coronation (the ceremony of crowning a king) the hula that had been banned in the kingdom became a celebration of Hawaiian culture!
 - **Hula 'Auana** is the modern style of Hawaiian hula dance. It is associated with ukulele and upbeat Hawaiian music.
 - This style **includes** the traditional steps, hand movements, and percussion instruments, but is said to have more of a theatrical approach with fancier costumes.
 - The focus on hula 'auana is more on **entertainment** rather than communicating with and honoring the Hawaiian Gods.



ACTIVITY: Learn Some Moves and Get Dancing!

- Tell students that now they have a chance to learn some Hawaiian hula dance moves!
- Read
 - Have your students **read** (or read to pre-readers) the names and descriptions of some of the dance moves:
 - Traditional Hawaiian Hula Dance Moves (included)
 - Have students **try out** the moves as they understand them from the **written words**.
 - **Ask:** How does this way of teaching information help you to learn the skill of hula?
- Infographic
 - **Show** students this super cool **infographic** describing hula moves
 - <http://www.fairmont.com/infographics/hula-guide/>
 - Get them up on their feet and have them **interpret** the infographic and give the moves a try.
 - **Ask:** How does this way of teaching information help you to learn the skill of hula?
- Videos
 - **Show** your students one or two instructional videos
 - Basic Hula- Hip Movements and Basic Foot steps (4:52)
<https://www.youtube.com/watch?v=rb1hNeyU60w>
 - Basic Hula- Hand Movements Depicting Nature (4:10)
<https://www.youtube.com/watch?v=683qTYEKKjE>
 - Have them **watch and follow along** with the teacher.
 - **Ask:** How does this way of teaching information help you to learn the skill of hula?
- **Finally**, have your students **evaluate** which way of learning how to dance the hula worked best for them.
- Keep dancing!
 - **Show** your students the video Hukilau- Teach you how to dance the hukilau (4:42)
https://www.youtube.com/watch?v=a6xb_7KmXKY
 - Have students **learn** this dance. They could **practice** it to **show** their friends and family.
 - Optionally, students could **put together** the moves that they have learned or ones they **create** themselves to **choreograph** their own hula story!

Extension:

- **Learn** about another traditional dance like the Haka from New Zealand.
- **Create** an infographic for a dance that you know.
- **Make** a teaching video for others to learn a kind of dance.



COOKING ISLAND CHICKEN SALAD

Kitchen Prep

- Read the ISLAND CHICKEN SALAD recipe card together.
- Identify and gather ingredients.
- Gather tools.
- Read the **Featured Culinary Skill - KITCHEN CLEANLINESS**
- Discuss kitchen safety. Specifically, **HANDWASHING** safety (Visit Raddishkids.com/pages/safety).

Prepare ISLAND CHICKEN SALAD

- Ask children to read or describe each step.
- Together, follow the steps in the recipe.
- Give each child a turn to grate, whisk, and slice.
- When the ISLAND CHICKEN SALAD is ready, eat, taste and share!
- While your friends and family are eating, teach them about the history of Hawaiian hula dance and put on a show!

RESOURCES

- **Books**
 - [Wolfmen Don't Hula Dance \(The Adventures of the Bailey School Kids #36\)](#) by Debbie Dadey
 - [The Story of Hula](#) by Carla Golembe
 - [The Haumana Hula Handbook for Students of Hawaiian Dance: A Manual for the Student of Hawaiian Dance](#) by Mahealani Uchiyama
 - [The Last Princess: The Story of Princess Ka'iulani of Hawai'i](#) by Fay Stanley
 - Other great Polynesia Dance books can be found here <https://www.myriahsbazaar.com/Hula-Polynesian-Dance-Books-s/42.htm>
- **Websites**
 - <http://www.huladancehq.com/hula-dancing-for-kids.html>
 - <http://www.huladancehq.com/hula-dance-1.html>
 - <http://www.alohafriends.com/hulamoves.html>
 - https://dance.lovetoknow.com/Basic_Hula_Steps
 - https://dance.lovetoknow.com/Basic_Hula_Steps
 - <https://www.robertshawaii.com/blog/hawaiian-hula-dance-101/>
 - http://www.huapala.org/Hula_Steps.html
 - <http://www.fairmont.com/infographics/hula-guide/>
 - <http://courses.wcupa.edu/jones/his101/misc/dates.htm>
- **Videos**
 - Hula- National Geographic (2:49) <https://www.youtube.com/watch?v=yXtQNVXNu-A>



Tells the history of hula and shows modern day competition. Please watch this video before showing it to your students to be sure that you are comfortable with the costumes.

- o Telling Warrior Stories with Hula (3:20) <https://www.youtube.com/watch?v=BFT-MI8N2A4>
Hula from the male perspective
- o Hukilau- Teach you how to dance the hukilau (4:42)
https://www.youtube.com/watch?v=a6xb_7KmXKY
Explains each move with the story that it is telling.
- o Basic Hula- Hip Movements and Basic Foot steps (4:52)
<https://www.youtube.com/watch?v=rb1hNeyU60w>
- o Basic Hula- Hand Movements Depicting Nature (4:10)
<https://www.youtube.com/watch?v=683qTYEKKjE>



Lesson #2: COCONUT SHRIMP
& HAWAIIAN FUSION CUISINE
Activity Time: 60 minutes

LEARNING OUTCOMES

- Students will **learn** the term fusion cuisine.
- Students will **watch** a video that shares the passion of chefs that practice food fusion.
- Students will **learn** the history of people arriving in the Hawaiian Islands.
- Students will **learn** the term *food staple*.
- Students will **use** a world map to **visualize** where people traveled from to reach Hawaii.
- Students will **read** about different food influences brought by different cultures to Hawaii.
- Students will **create** their own fusion dish.
- Students will **read** and **practice** the Featured Culinary Skill - Breading Procedure
- Students will **make** and **share** Coconut Shrimp.



HAWAIIAN FUSION CUISINE HISTORY

Notes for the Teacher:

- The word, "Fusion," is most often used to describe the act of combining two substances or items together, very often by the application of heat. Some examples are:
 - nuclear fusion - the process where two or more nuclei are fused to form one, larger nucleus
 - fusion of two metals to form an alloy (bronze is a fusion of copper and tin)
 - fusion of two ideas to form an entirely different principle.
- In this lesson you will be teaching about the third kind- a meeting of two ideas to make something completely new.
- Depending on what else you are teaching at this time. This lesson could also fit in well with a unit on explorers, migration, or inequality.

Teacher Prep:

- **Collect Materials:**
 - Recipe Guide, tools and ingredients listed
 - Blank copy of a World Map
 - Atlas
 - Things from around the house that show the idea of fusion. For example:
 - Pluot (plum mixed with apricot) or another hybrid food
 - Bronze (copper mixed with tin)
 - Music (Reggae and rock)
 - Television program (Dramedy- comedic drama)
 - Barbie playing in a Lego house (fusion of toys)
 - Candle wax melted to hold it onto a plate
 - Different colors of playdough stuck together
- **Watch**
 - The Food in Hawaii is not necessarily Hawaiian- Cooking America (2:51)
<https://www.youtube.com/watch?v=x2y66VBGcVg>



LESSON: HAWAIIAN FUSION

- Introduction: What is fusion?
 - **Collect** items from around the house that illustrate the idea of fusion. See the definition in the teachers notes and ideas listed above.
 - **Ask:** What do you think fusion means?
 - Give them time to talk amongst themselves.
 - If they get stuck, you can hint at the root verb “to fuse” or put out on the table a few examples of things that show fusion.
 - Have students **share** their ideas of what fusion might mean.
 - Put other examples on the table and have them **investigate and suggest** what makes each item an example of fusion.
 - **Discuss** their ideas and encourage them to create a definition for fusion.
 - Add to or complement their definition with the following information:
 - The word "fusion" is most often used to describe the act of combining two substances or items together, very often by the application of heat. Some examples are:
 - nuclear fusion - the process where two or more nuclei are fused to form one, larger nucleus
 - fusion of two metals to form an alloy (bronze is a fusion of copper and tin)
 - fusion of two ideas to form an entirely different principle
 - It is the idea of fusing ideas where fusion cooking comes in. It is essentially the marriage of one or more cooking traditions, techniques, or disciplines to form an altogether different approach or finished dish.
 - Tell the students that today they are going to **investigate** together how Hawaiian Cuisine is a fusion of ideas, ingredients, flavors, and methods from many different countries.



- BACKGROUND INFORMATION: Who came to Hawaii and what did they bring with them?
 - Bring a blank world map to the table and have the students find Hawaii.
 - Ask: What do you notice about Hawaii?
 - Example answers:
 - It is a group of islands.
 - It is far out in the Pacific Ocean.
 - (Maybe) It is volcanic.
 - Share some history about Hawaii. As you tell the story, have students find where each group of people came from, guess how they traveled, and guess what routes they took to arrive in Hawaii. Mark on the map.
 - Polynesia
 - The first wave of islanders arrived in Hawaii sometime around 300-500 CE. At that time there were hardly any edible plants or animals on the island.
 - It is believed that these people traveled from Polynesia by canoe and brought with them around 30 edible plants, including sugarcane, as well as pigs, poultry, and dogs.
 - They discovered that taro was perfectly suited to the wet, humid climate of the islands.
 - Taro is a large-leaved tropical Asian plant with an edible starchy underground stem.
 - Taro become a *staple food*.
 - A staple food is a food that is eaten regularly and in such a large amount that it makes up a big part of what most people eat, and it supplies a large fraction of energy needs of those people.
 - Britain
 - Captain Cook arrived in the Islands from Britain in 1778, bringing with him goats, English pigs, and seeds for onions, melons, and pumpkins.
 - Captain George Vancouver also came from Britain in 1793 and brought with him cattle. Cattle multiplied quickly because they had no natural predators. This is the first time Hawaiians ate beef!
 - Spain
 - In 1813, Don Francisco de Paul Marin arrived from Spain. He introduced pineapple and grape vines. He also was the first to plant coffee, brew beer, and experiment with growing oranges, limes, beans, cabbages, potatoes, peaches, corn, and lettuce.
 - China
 - By the 1800's most of the island's lands were planted with sugar and pineapple. These plantations were owned and run by American settlers and used native people to do the back-breaking work.
 - When the Hawaiian workers had enough, around 1850, the plantation owners brought over Chinese people to work in the fields.



- The Chinese brought with them woks and stirfries.
- Portugal
 - By the end of 1911 nearly 16,000 Portuguese immigrants had arrived in Hawaii to work in the sugar cane plantations.
 - They brought with them their love of pork, chili pepper, and malasadas (sweet deep-fried donuts).
- Japan
 - The first Japanese were the next wave of laborers to come in 1868.
 - Japanese people brought the idea of Bento boxes and sushi.
- Puerto Rico
 - Puerto Rican immigrants started coming to Hawaii around 1900 and brought spicy dishes and meat turnovers.
- Philippines
 - The Hawaiian Sugar Planters Association began recruiting workers from the Philippines in 1906 after their access to Chinese and Japanese labor was limited by immigration legislation.
 - Filipinos brought adobo-style food and garlicky rice dishes.
- Vietnam
 - Finally, the Vietnamese laborers were brought over right before the sugar and pineapple industries went into decline, around 1905.
 - They added lemongrass, coconut milk, and ginger to Hawaii.
- Have students **look at** the map and see all of the different places that people immigrated to Hawaii from and **discuss** the possible food and other influences.
- **Watch** the video: The Food in Hawaii is not necessarily Hawaiian- Cooking America (2:51)
<https://www.youtube.com/watch?v=x2y66VBGcVg>
 - What are some examples of fusion food mentioned in the video?
- Some examples of Hawaiian Food Fusion
 - **Kalua pork** – smoky, moist, fall apart pork
 - **Shoyu Chicken** – sweet, gingery, 5-spice baked chicken thighs
 - **Poké** – raw tuna mixed with sesame oil, soy sauce, green onions, and seaweed
 - **The Loco Moco** – breakfast dish consisting of rice, hamburger patties, fried eggs, and brown gravy
 - **Spam Musubi** – spam layered with sticky rice and wrapped with nori
 - **Haupia pudding** – coconut pudding cut into squares that look like soap
 - **Plate lunch** – This was likely an idea that came from Japanese immigrants who would take cold rice and leftover meat to the fields for lunch. Today Hawaiians usually have a scoop or two of rice, macaroni salad, and an entrée like Kalua pork or Shoyu chicken.
- Some further ideas can be found here
 - 6 foods that tell the fusion history of Hawaii <https://firstwefeast.com/features/hawaii-food-history/>



ACTIVITY: Create your own Fusion Dish with a Hawaiian Twist

- **Provide** students with the following tips for creating a fusion dish (adapted from Chef Peter Gordon the unofficial “Father of Fusion”):
- Tips to create a fusion dish:
 - **Choose** a dish that you really like
 - **Make** it according to the recipe so that you understand the processes needed- like frying, sautéing, mincing, etc.
 - **Ask:** What is it about that dish that you like? Is it flavors, textures, colors, or presentation? Is it certain ingredients?
 - **Make** the original dish and then **tweak** it (change it a little)
 - Think about what you could add. Or swap an ingredient that you think would be interesting.
 - Instead of ingredients think tastes.
 - Example: You're thinking about using a lemon. How is it going to contribute? Do you want the tang (acid) or the smell (aroma)? For the aroma, you could try lemon zest, lemongrass, or lemon verbena. If you want acid, you could try other citrus, like limes, tangerines, oranges, or grapefruit., or you could try vinegar.
 - **Choose** your components (for example: protein and style of cuisine)
 - You could choose to make a hamburger in a combination of Japanese and American style.
 - This could turn out to be a miso-flavored burger topped with flaked seaweed on a sesame bun.
 - Or an American style cheeseburger formed into a sushi roll with a wasabi ketchup dipping sauce.
- **Fuse It! Invite** students to **create** their own fusion dish.
 - **Tell** them to pick a recipe that they really like or know well and think of a way to Hawaiian it up a little.
 - **Assist** them to look up or find recipes.
 - **Add** the ingredients that would make it Hawaiian.
 - **Illustrate** what the dish would look like or **write** out a menu.
 - **Optionally, make** the dish and share it with friends and family.

Extension:

- **Create** a menu for your own fusion restaurant.
- **Make** a Raddish style tri-fold recipe guide for your fusion dish.
- **Create** a game where you give someone an ingredient and two countries or regions and have them come up with an idea of a dish.
- **Find out** more about one of the explorers that came to Hawaii.
- **Research** what life was like to work on a pineapple or sugar plantation.



COOKING COCONUT SHRIMP

Kitchen Prep

- Read the COCONUT SHRIMP recipe card together.
- Identify and gather ingredients.
- Gather tools.
- Read the **Featured Culinary Skill - BREADING PROCEDURE**
- Discuss kitchen safety. Specifically, OVEN safety (Visit Raddishkids.com/pages/safety).

Prepare COCONUT SHRIMP

- Ask children to read or describe each step.
- Together, follow the steps in the recipe.
- Give each child a turn to mix, crack, try the breading procedure.
- When the COCONUT SHRIMP are ready, eat, taste and share!
- While your friends and family are eating, teach them a bit about the food fusion history of Hawaii. Share some tips on how they can create their own fusion dishes and tell them about your creation.

RESOURCES

- **Websites**
 - <https://danazia.wordpress.com/2011/03/08/history-of-hawaiis-cuisine/>
 - <https://www.to-hawaii.com/food.php>
 - 6 foods that tell the fusion history of Hawaii <https://firstwefeast.com/features/hawaii-food-history/>
 - <https://www.languagesoftheworld.info/uncategorized/hawaiian-cuisine-melting-pot-ingredients-cultures.html>
 - <https://migrationology.com/traditional-hawaiian-food-dishes/>
 - <https://delishably.com/food-industry/what-is-fusion-cooking>
- **Videos**
 - The Food in Hawaii is not necessarily Hawaiian- Cooking America (2:51) <https://www.youtube.com/watch?v=x2y66VBGcVg>
 - Fusion Food (2:25) <https://www.youtube.com/watch?v=L5uJE1p0Dos>



Lesson #3: PINEAPPLE UPSIDE DOWN CUPCAKES
& TROPICAL CLIMATES AND FRUIT
Activity Time: 45 minutes

LEARNING OUTCOMES

- Students will **read** about the major climate zones of the earth.
- Students will **learn** the parameters of what makes a region tropical.
- Students will **locate** the tropics on a map.
- Students will **learn** about how pineapples grow.
- Students will **research** how another tropical food grows.
- Students will **teach** what they have learned about that tropical fruit.
- Students will **read** and **practice** with **Featured Culinary Skill** – Baking Cakes.
- Students will **make** and **share** Pineapple Upside Down Cupcakes.



TROPICAL CLIMATES & FRUIT

Notes for the Teacher:

- This lesson mentions the Tropic of Cancer and Capricorn and uses the measurement of degrees north and south but does not dive into the ideas of latitude and longitude. For further lesson ideas check out: <https://thecanadianhomeschooler.com/teach-your-kids-about-longitude-latitude/>

Teacher Prep:

- **Collect Materials:**
 - Recipe Guide, tools and ingredients listed
 - Atlas, map or globe.
 - Materials to share learning (varies depending on method):
 - Video camera
 - Paper and pencil
 - Costume
 - Paints etc.
- **Read**
 - Tropical Climates section of the Pineapple Upside Down Cupcake recipe guide
 - The definition of the Tropical Climate Zone below
- **Watch**
 - DOLE- Growing Pineapples (4:44)
<https://www.youtube.com/watch?v=vpJHgXaPzFA&t=17s>
 - Top 10 Tropical Fruits You've Never Heard Of (4:58)
<https://www.youtube.com/watch?v=OKTejIu-7-0>



TROPICAL CLIMATE

- INTRODUCTION: Major Climate Zones
 - Read the Tropical Climates section of the Pineapple Upside Down Cupcake recipe guide.
 - Discuss the different climate zones. Ask:
 - What animals do you think live in each zone?
 - Name a country from each zone.
 - What do you think the average temperature is in each zone?
 - What clothes could you wear in each zone?
 - What plants do you think grow in each zone?
 - Which zone would you most like to live in? Why?
 - Which zone would you like to take a holiday in? Why?
 - Tell the students that today they are going to focus their attention on the Tropical Climate Zone and the plants that grow there.
- BACKGROUND INFORMATION:
 - Tropical Climate - What does it mean?
 - Bring a map, globe, or atlas to the table. Point out the different latitude lines mentioned below.
 - Strictly speaking, the tropics extend between the Tropics of Cancer and Capricorn, at 23° north and south of the equator. But, when you are talking about food-growing regions, these boundaries are too rigid. Not only do they contain areas, especially at higher altitudes, that do not fit the climatic characteristics assigned to the tropics, but regions outside this belt have areas that may have climatic conditions fitting properly in the tropics. This is the reason why some climatologists have extended the region to the thirtieth (30th) parallels North and South.
 - The main features associated with the tropics are:
 - steady warm temperatures throughout the year with temperature averages around 80.6°F (27°C)
 - the warmest month is only a few degrees higher than the coldest month
 - very little variation in the number of hours of sunshine, with the longest day being less than thirteen hours long
 - Tropical Food - What foods grow in the tropics?
 - Watch the following video to show how pineapples grow:
 - DOLE- Growing Pineapples (4:44)
<https://www.youtube.com/watch?v=vpJHgXaPzFA&t=17s>
 - Ask:
 - Were you surprised by how pineapples grow? If so why?
 - What conditions did the pineapples need to grow?
 - Temperature, soil, water, nutrients, etc.?
 - How does the amount of sunlight affect the pineapple?
 - Tell the students that next they will have the chance to research their own tropical fruit.



ACTIVITY: Tropical Fruit and How it Grows

- Tell students that they will be able to:
 - Choose a tropical fruit that interests them
 - Learn about where it grows (find that place on a map)
 - Discover its growth cycle (what climate it needs)
 - Explore: What does it taste like? How would you eat it?
 - Teach someone else about that fruit – options:
 - create a picture that shows the stages of growth
 - tell the story of the growth of the fruit
 - make a commercial to sell the idea of a new fruit to a supermarket
 - create a cartoon to show the life story of the fruit
 - make a costume and act out the life cycle of the fruit
- Ideas for tropical fruits:
 - Exhaustive list of tropical fruits with great photos <https://www.thespruce.com/tropical-fruit-photo-gallery-4122062>
 - Top 10 Tropical Fruits You've Never Heard Of (4:58) <https://www.youtube.com/watch?v=OKTejIu-7-0>
- Assist the students in completing their research and deciding how to share what they have learned.
- Make a gallery or have presentations to share what students have learned.

Extension:

- Research another tropical fruit.
- Learn about latitude and longitude and their relationship to Major Climate Zones.
- Find recipes that use your tropical fruit.
- Go on a hunt for tropical fruits in your grocery store or specialty shops. (Complete the tropical fruits section of [this month's Grocery Store Scavenger Hunt](#))



COOKING PINEAPPLE UPSIDE DOWN CUPCAKES

Kitchen Prep

- Read the PINEAPPLE UPSIDE DOWN CUPCAKES recipe card together.
- Identify and gather ingredients.
- Gather tools.
- Read the **Featured Culinary Skill - BAKING CAKES**
- Discuss kitchen safety. Specifically, OVEN safety (Visit Raddishkids.com/pages/safety).

Prepare PINEAPPLE UPSIDE DOWN CUPCAKES

- Ask children to read or describe each step.
- Together, follow the steps in the recipe.
- Give each child a turn to measure exactly, fill evenly, test for doneness.
- When the PINEAPPLE UPSIDE DOWN CUPCAKES are ready, eat, taste and share!
- While your friends and family are eating, teach them about the tropical climate zone and the cool fruits that grow there.

RESOURCES

- **Websites**
 - : <https://thecanadianhomeschooler.com/teach-your-kids-about-longitude-latitude/>
 - Easy Vegetables to Grow in the Tropics <https://downtoearthph.com/2012/03/17/easy-vegetables-to-grow-in-the-tropics/>
 - Exhaustive list of tropical fruits with great photos <https://www.thespruce.com/tropical-fruit-photo-gallery-4122062>
 - <https://www.encyclopedia.com/food/encyclopedias-almanacs-transcripts-and-maps/tropical-and-subtropical-fruit>
- **Videos**
 - DOLE- Growing Pineapples (4:44) <https://www.youtube.com/watch?v=vpJHgXaPzFA&t=17s>
 - Top 10 Tropical Fruits You've Never Heard Of (4:58) <https://www.youtube.com/watch?v=OKTejIu-7-0>

Traditional Hawaiian Hula Dance Moves

Sourced from <https://www.robertshawaii.com/blog/hawaiian-hula-dance-101/>

- **Ha'a:** This is a basic stance, and how most hula begins. In this move, dancers stand erect with their knees bent.
- **Lewa:** Literally translated as "lift," this step involves lifting the hips.
- **Hela:** One of the most basic movements of the feet. For hela, a dancer touches one foot to the side at about a 45-degree angle in front of their body. The dancer keeps their weight on the other foot, while maintaining the bent-knee stance. They return the foot to the starting position and repeat with the other foot.
- **Ka'i:** In this position, the dancer lifts one foot, then raises and lowers the heel of the opposite foot. The movement then repeats with the other foot.
- **'Ami:** This is a basic hip rotation with variations including the 'Ami 'ami, 'Ami 'ôniu and 'Ami ku'upau.
- **Holo:** Similar to the lewa, appears as a running movement.
- **Kâholo:** To Kâholo a dancer performs the lewa move while traveling. The dancer first steps to one side and follows with the opposite foot, then steps to the same side again.
- **'Uehe:** In this move, the dancer lifts one foot and shifts their weight to the opposite hip when stepping down, then raises both heels to push the knees forward. These movements repeat on the opposite side.
- **Lele:** Another walking move, in this position, the dancer lifts their heel with each step.