

## Mohala Activity Plan

**Name of Activity:** Cooking Pad Thai Noodles

**Learning Goal:** The short term learning goal for this activity is that the children will observe and describe the changes in the ingredients as they are cooked and also be able to theorize on what caused the changes. As the water boils, the oil sizzles, the noodles, sprouts, and cilantro soften, the egg solidifies, and the tofu changes color children will develop a conceptual understanding for heat (cooking) causing these varied effects. This learning goal comes from Hawaii Preschool Content Standards science domain and is important to this group of children because it illustrates a major component of a seed to plate curriculum in that we can cook with what we grow. Investigating changes and the causes of the changes supports a child in developing and nurturing their sense of inquiry. An additional goal during this activity is in the realm of language and literacy development as children are encouraged to articulate their observations and explain their thinking.

**Chosen Because:** This activity is a part of a large-scale science unit (seed to plate/plate to seed) taking place across the school year (providing interest of the children is sustained as we go along). From the beginning of the school year we have been doing small group activities that are aspects of the seed to plate curriculum. As often as possible we have been and will continue to eat the food we grow and grow food from the food we ate.

**Place-Based:** The seed to plate curriculum is place based in that our school has a garden that is intentionally accessible to children. The garden is a part of our schools focus on outdoor learning and sustainable living. More specifically, this cooking activity is place based for this group of children because they sprouted the mung beans into bean sprouts and cared for the chives that are a part of the recipe. The recipe also calls for cilantro and basil. We will gather the basil from our garden and we will be planting cilantro in our classroom soon. Using cilantro in this recipe will provide a context for one of the elements of the herb garden we will be growing in our classroom.

**Background:** The children have experience sprouting mung beans in the classroom and harvesting them to use in cooking already this semester. We used the mung beans to make miso soup. This second time we sprouted the mung beans we again made miso soup in the classroom because the children loved it. However we wanted to add another recipe to our bean sprout repertoire, hence pad Thai noodles. The first time we sprouted mung beans we not only ate them raw and cooked, we also planted some of the sprouts into the soil and cared for them as they grew. Unfortunately when we transplanted them into the UHMCC garden they did not survive which is why we began this

process a second time. Last week we sprouted the beans and documented the sprouting process with photographs, dictation, and sketching. This week we will cook with the beans and next week we will plant the sprouts into soil to grow plants that we hope will survive this time and produce more mung beans.

**Standards/Benchmarks/Performance Indicators:**

The Pad Thai Noodle cooking activity will focus on the following Hawaii State Preschool Content Standards in Domain IV/Science in order of prominence:

**Standard 3: Explore physical properties of the world.**

Children will *experiment with the effect of his/her own actions on objects* as the heat causes the recipe ingredients to change in consistency and also in flavor. This is an important goal for children as they conceptualize how actions cause reactions.

**Standard 1: Increase sensory awareness.**

Children will *begin to identify and discriminate among sensory stimuli*, as they taste the recipe ingredients both cooked and raw. This is an important goal for children as they further develop their sense of taste.

**Standard 6: Have a variety of educational experiences that involve technology.**

Children will *use real technology with guidance*, as the Pad Thai noodle dish is prepared using an electric skillet. This is an important goal for children because using technology for cooking supports foundational life skills as well as potentially supports the link between school and home where similar tools may be used for cooking.

**Indicators for Learning:**

It is my hope that following this activity during the debriefing the children will be able to articulate what caused the various ingredients to undergo changes due to the heat of the skillet. When introducing the ingredients to the children as we prepare them for cooking I will ask the children to describe the ingredients and I will document their descriptions. After cooking I will ask the children if anything about the ingredients changed and what and I will document that as well using the initial descriptions as a literacy reference. This direct questioning is a clear method of assessment. I will ask the children what they think caused the changes and why. The responses on behalf of the children will serve as indicators of their learning. During the activity itself I will call attention to the changes by articulating my own observations if necessary, doing this with the small group will focus their attention on looking for and talking about changes caused by heat.

<b>Learning Format (Preschool) or Phases (K-3<sup>rd</sup> Grade)</b>	
During this time the class will have just transitioned indoors from the playground for a whole group	I am choosing to bring the mung beans into a whole group discussion because the process of sprouting

Activity Plan #2

<p>gathering. Following the <b>whole group</b> gathering in which we greet one another as a classroom ohana. Following this daily routine I will bring out one of the ingredients for the Pad Thai recipe (Mung Bean Sprouts) to use as a transitional link from the sprouting that had previously occurred in the classroom to the cooking that we will be doing with our 'harvest'. I will then invite a <b>small group</b> of four children to accompany me to Anuenue class to do a cooking activity. My teaching partner and a student assistant will remain in the classroom with the rest of the children for child chosen center activities.</p>	<p>the mung beans is one that nearly all of the children have been interested in. Even though not all of the children will be involved in the cooking they will be involved in the eating and by transitioning to the activity through the sprouts I will support maintaining whole group participation in the seed to plate curriculum. I am choosing to work in small groups for the cooking portion of the activity because I will be best able to engage children in complex thinking and potentially instructional conversations in a small group.</p>
--	---

**Activity Description:** The children and I will have a briefing conversation about what we are going to make with the recipe ingredients, what they ingredients are, and I will call attention to the learning goal of observing how the ingredients will be changing as the heat in the skillet changes. As we prepare the recipe ingredients for cooking we will document descriptions of the ingredients before and after the cooking process. Following the cooking activity we will sample the dish while having a debriefing conversation about what changed and also caused the ingredients to change. After we cook the Pad Thai recipe we will share it with the whole group during lunch.

**Steps for teacher/children**

Time	Setting	Activity Description	Materials
9:30	In Hoku classroom block area.	<p><b>Whole Group Briefing:</b> I will bring the jar of bean sprouts to circle to support the seed to plate concept of the cooking activity. I will ask children if they would like to taste a bean sprout raw (uncooked). I will ask them to recall the first time we sprouted mung beans in our classroom and used them to cook miso soup. Following this brief transitional conversation I will invite four friends to wash their hands in the bathroom before cooking with me in Anuenue class. (CREDE Standards: CTX)</p>	Mung Bean Sprouts.

Activity Plan #2

<p>9:45</p>	<p>Round Table in Anuenue class.</p>	<p><b>Briefing:</b> I will use the printed recipe as a reference as I introduce the various ingredients and the unheated skillet to the small group of children. I will give the children an opportunity to touch the skillet before it is turned on. I will be using questioning as a form of assistance to get the children thinking and to frame the learning experience. I will ask the children, "When we turn the skillet on what will happen to it? What do you think will happen to the recipe ingredients in the hot pan? Will they change or will they stay the same? Do you remember when we used the sprouts we grew to make miso soup? Did any of the recipe ingredients change after being cooked? How did it change? Who cooks at your house? Do you help to cook? What do you cook? What happens to the food when you cook it at your house?" I will then tell children that I want to write down what they observe about the recipe ingredients and that when we are done we will write down any changes that occurred while we cooked. (CREDE Standards: CTX, CT, LLD)</p>	<p>Printed recipe, recipe ingredients, skillet (not yet hot)</p>
<p>10:00</p>	<p>Same</p>	<p><b>Teaching Steps:</b> Following the briefing I will give each child a rice noodle to investigate while the water reaches boiling temperature. I will document each child's description of the noodle. I will do the same with a bean sprout and a sprig of cilantro while the water begins to boil. Once boiling we will cook noodles and set aside. I will give children a cooked noodle to investigate and I will ask them to describe any changes they observe as I document their words. I will then give each child a large piece of tofu to cut up and I will document observations of the</p>	<p>Same as above and also cooking oil, wooden spoon, cutting boards for four children and myself, plastic knives, bowls for ingredients, measuring cup.</p>

Activity Plan #2

<p>10:20</p>	<p>Same</p>	<p>uncooked tofu. We will then cook the tofu in oil and watch it change. I will give the children a piece of cooked tofu to investigate and eat and document their words about any observed changes. The remaining ingredients will be added to the skillet and the children will be given opportunities to add ingredients and stir them until dish is completed. While cooking I will employ cognitive and task structuring at each step so that the children are following the step one at a time before we move onto the next step together. I will also employ questioning as a form of assistance in an effort to engage complex thinking and also to reinforce the activities learning goal. (CREDE standards: JPA, LLD, CT, MD)</p> <p><b>Debriefing:</b> After serving each child a scoop of Pad Thai noodles I will use the recorded observations gathered during the activity to debrief the children. I will read back their observations of the five major uncooked ingredients and ask them questions to facilitate shared teacher/child dialogue regarding visual, tactile, and palatable (is that a word?) changes they notice in the ingredients after observing and participating in the cooking process. I will ask children to explain their thinking regarding what they believe may have caused the ingredients to change. (CREDE Standards: JPA, LLD, IC)</p>	<p>Forks, plates, napkins, paper with recorded observations, Marker.</p>
--------------	-------------	--	--

**CREDE STANDARDS**  
Please write how you will (if you will) implement the following standards.

Activity Plan #2

Indicate (Ex. with asterisk) which standards will be your focus for this lesson.		
CREDE STANDARD	How it will be used	Target Score
<p><b>JPA</b> Joint Productive Activity</p>	<p>Children will work in collaboration with myself and also with one another to prepare the ingredients and cook the noodle dish that will later be shared with the entire classroom ohana. Additionally together we will create activity documentation of details of the recipe ingredients and the changes occurred in their details once cooked. This document is a vocabulary and literacy building product. I will assist this collaboration using multiple forms of assistance including modeling procedures and positive social behaviors, providing clear instruction on how to follow the steps of cooking Pad Thai noodles, and sequencing the steps so that the group is working at a collaborative pace.</p>	<p>4 *</p>
<p><b>LLD</b> Language &amp; Literacy Development</p>	<p>Children will be introduced to new vocabulary (names of the ingredients, skillet, texture, flavor, raw) and this new vocabulary will be utilized appropriately throughout the activity as well as during the briefing and the debriefing. Language expression will be encouraged during the briefing through complex thinking questioning and other forms of assistance such as direct feedback and modeling appropriate language to describe observations and theories constructed by the children. The children will witness their spoken words being documented, which will enhance their conceptual understanding of literacy's link to</p>	<p>5 *</p>

Activity Plan #2

	<p>oral language. When sharing the food with peers at lunchtime the children will be presented with an opportunity to build vocabulary and language expression with the whole group. The focus on language and literacy will be throughout the activity and done in a developmentally appropriate manner as children experience what they are learning. Depending on how the children respond I will adjust the approach I take to scaffold individual children in their understanding.</p>	
<p><b>CTX</b> Contextualization</p>	<p>During the whole group briefing and the activity period I will refer children to recent cooking experiences (specifically asking them to recall cooking miso soup which we also did with Mung Bean Sprouts) to further build on existing concepts regarding changes and cause and effect relationships. Engaging them in dialogue about what they already know conceptual understanding will be reinforced. In an effort to integrate new information with existing knowledge I may ask the children questions such as, "Do you remember when we used the sprouts we grew to make miso soup? Did any of the recipe ingredients change after being cooked? How did it change?" Some of the children may help to cook or observe others cooking at home and I will invite them to think about and share those experiences as well. To facilitate this I may ask, "Who cooks at your house? Do you help to cook? What do you cook? What happens to the food when you cook</p>	<p>4</p>

Activity Plan #2

	it at your house?"	
<b>CT</b> Complex Thinking	During the briefing and the activity as the ingredients are cooked and during the debriefing I will use questions that encourage complex thinking. I will ask the children Why they think the ingredients changed in the way they observed? I will ask them to think about what is happening to the ingredients in the hot skillet and why they think it is happening. As the conversation flows I will respond to children's ideas and theories in a way that encourages them to think further even if they do not have an answer. I will model inquiry and curiosity through questioning and when appropriate I will provide answers to the questions posed.	5*
<b>IC</b> Instructional Conversation	During the activity and the debriefing I will engage children in dialogue by questioning their understanding listening carefully to their response and assess their understanding of the learning goal, namely if and why any of the ingredients changed as they cooked. I will also ask children why they think what they think to lay a foundation of reflective thinking/metacognition. For example if a child is able to tell me that the noodles got soft I may ask them why they think that the noodles got so soft.	5*
<b>MD</b> Modeling	I will model the procedural steps of preparing the ingredients and cooking the pad Thai noodles. I will model safe and appropriate ways to use the cooking tools as well as model the thinking processes that encourage inquiry for the children	4

Activity Plan #2

	<p>during the activity. I will be cooking the Pad Thai Noodles with the children and showing them step by step how to do it. As the children practice these steps I will assist them in following the steps. The type of assistance used with each individual child will depend on what they are able to accomplish with out assistance. If possible I will ask children to assist one another or notice how their peers are engaging in the activity.</p>	
<p><b>CDA</b> Child Directed Activity</p>	<p>Participation in the cooking activity will be a choice for children and the alternative will be to engage in other classroom activities. Children will not be forced to participate. I will participate in the activity with the children. Overall this particular activity will not have much room for choice with the exception of how the children respond to the specific questions being posed.</p>	<p>4</p>

**Post Lesson Reflections:**

1. Which children met the learning goals? How do you know this?
2. Which children did not meet the learning goals? How do you know this?
3. What aspects of the learning goals were not met?
4. How will you ensure the students will achieve the learning goal?