



**ELA Common Core Content Standards:**

Writing Standards 2

Speaking and Listening Standards 1, 3, 4

Language Standards 1, 2, 5, 6

*Estimated time:  
One 2 hour session*

**Goal:** Students will learn about how nutritional foods and physical exercise help their bodies keep healthy, and that gathering and eating Native Foods help prevent diet-related diseases.

**Teacher Background:** The prevalence of obesity and diet-related chronic disease is increasing in the United States, and the Native American population shows the most devastating rates of all ethnic groups. While the public's health is further threatened by rising antibiotic resistance; chemicals and pathogens contaminating our food, air, soil and water, the depletion of natural resources and climate change is negatively affecting the environmental health of our homelands. According to the American Public Health Association, "These threats have enormous human, social, and economic costs that are growing, cumulative, and unequally distributed. These issues are all related to food—what we eat and how it is produced."

In many parts of the United States, the industrial food system provides abundant, relatively inexpensive food. This is not the case in most areas that are highly populated by Native Americans. At the same time, much of the food commercially available is unhealthy, and the industrial food system is currently unsustainable. On the other hand, the traditional Native foods are replete with economic and environmentally sustainable healthy foods. Why, then, are Native peoples one of the poorest and most unhealthy ethnic populations in the country?

There are manifold reasons to explain the current situation: Our People's intimate and deep relationship to the landscape has been violently disrupted due to colonization and globalization. Land appropriation, the ban on traditional land management practices – especially on cultural burning, and forced assimilation into Western culture has driven many Native people from their traditional homelands. Even those who remain have limited access to

traditional foods and medicines. Additionally, the marginalization of Native cultures and the damage to traditional education through the Indian Boarding School Era have led to what is widely known as intergenerational trauma. And finally, the current threats posed by increasing frequency and scale of wildfire, continued drought conditions, pest and disease infestation have highly and negatively impacted access to Native foods, fibers and medicinal plants.

For the Karuk and other Native Americans, hunting, fishing and gathering food activities not only contribute to the perpetuation of indigenous culture, but also are subsistence living measures with arguable economic benefits. While the Karuk people sometimes traded with other villages and tribes for specific foods, they worked with the environment to produce enough food to sustain themselves, the wildlife and health of the environment on which they depend. The many strenuous activities required to maintain food security also ensured the physical fitness of Native peoples, young and old, as attested by ethnographic and anthropological reports.

<b>Theme/Big Ideas:</b>	We can be healthy!
<b>Big Question:</b>	How can we be healthy? What is our relationship to our relations (humans, animals, rivers, mountains and plants)?
<b>Vocabulary:</b>	head/ <i>axvâah</i> , shoulder/ <i>takraav</i> , knee/ <i>páthak</i> , toe/ <i>fíthih</i> , eye/ <i>yúup</i> , ear/ <i>tíiv</i> , mouth/ <i>apmaan</i> , nose/ <i>yúfiv</i> ,

#### Materials:

- Food Pyramid** (included)
- Karuk Fall Healthy Meal Worksheet** (included)
- Food Picture Page** (included)
- Hunter/Gatherer Challenge** (included)
- Vocabulary and Grammar Worksheet:** Connect the Word and Picture (included)
- Head and Shoulders** video, Geena and Sinead Talley (included in Kindergarten DVD)

**Preparation:** Review lesson background and discussion points. Print out copies of all materials for each student, whereby only one copy of the Hunter/Gather Challenge will needed per group. Acquire the following for the physical activity:

- stop watches or timers,
- measuring tapes or sticks,
- weights or equally heavy stacks of books
- chalk or erasable pens for marking

**Discussion Circle:** Ask students: how do people stay healthy? Write their ideas up on the board as bullet points. When they finish, ask if they agree with all that has been said, reading bullet points one by one from the board. Once they are all in agreement, ask them if they can group the ideas into main categories (Ideally, *diet* and *exercise* are included in the topic headings).

Tell students that long ago, the Native people of this region were some of the healthiest people in the world. Ask them if they know why (*suggested answers: Native foods are healthy, and harvesting those foods required a lot of physical exercise*). Tell students that today, American Indians are often unhealthy: for example, many have high rates of a disease called diabetes<sup>1</sup>. Ask them if they know anyone with that disease. Ask them if they know what diabetes is (*suggested answer: it is a serious disease in which the body cannot properly control the amount of sugar in your blood*). Tell them that while a type of diabetes is preventable, the rate of Native American children between 10 and 19 getting this disease has more than doubled in the last 20 years. Ask them if they can imagine why this is true (*suggested answer: Today, many Native Americans aren't eating healthy foods and getting enough exercise*).

Tell students that today, we will learn about healthy eating and living. Ask them if they know about the Food Pyramid, and tell them, if needed, that this is a recommendation for balancing amounts of certain types of food in the human diet in order to maintain health.

Project the **Food Pyramid** on a document reader. You may wish to point out that many people disagree about what makes a healthy diet, and that even western scientists change their minds every few years about what is and isn't healthy. Explain the food groups and the recommended daily amounts. Do they agree with these suggestions? Why and why not?

Ask students if they know which foods were eaten by the Native peoples of this area long ago (*suggested answers: fish, such as salmon, sturgeon, trout ; nuts, such as hazelnuts, peppernuts, sugar pine nuts, and a variety of acorns; meat, such as deer, elk, wild turkey, grouse, quail, grey squirrels; vegetables, such as wild carrots, onions, Indian potatoes; fruits, such as huckleberries, salmon berries, madrone berries, and elderberries; grains, such as wild rye and wild oats; and fats, such as from animals, fish and nuts*). Point out that the Karuk Traditional Food Pyramid looks very different: there aren't sections for dairy products, sweets and fats. Certain types of

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<sup>1</sup> See American Indian Health website: <https://americanindianhealth.nlm.nih.gov/eating.html> : "Native Americans suffer disproportionate rates of diet-related ills, such as hypertension and diabetes and are more than twice as likely to be diagnosed with coronary heart disease, government statistics show. American Indians and Alaska Natives are diagnosed with diabetes at rates more than twice as high as the general population — 16.1 to 7.1 percent, according to the Indian Health Service. Indigenous children between 10 and 19 have seen a 110 percent rise in adult-onset, or Type 2, diabetes in the last 20 years.

fats are very important for good health, but the fats eaten in a traditional diet are contained in food. For example, acorns and salmon are very nutritious, and they also contain high amounts of valuable fats. Another interesting fact is that the lowest portion of the food pyramid is only made up by a small portion of wild grains, but very heavy on acorns and Indian potatoes in the spring. Explain that while Karuk people eat acorn bread, that kind of bread is not considered a part of the grain section because the tan oak acorn is a type of nut.

**Activity:** Tell students that they will paste pictures on a food pyramid that is an example of a typical, healthy fall Karuk meal. Remind students that Indigenous peoples traditionally eat seasonally, which means that the foods prepared are available at that time of year. Foods that have been dried and stored are also used. Pass out the **Karuk Fall Healthy Meal** worksheet and the picture page (included) and have them cut out (if desired) the pictures, glue in those they think could be an example of a healthy meal. Have them trace the letters of the worksheet title and write their names on the top. Once they are finished, ask them to hold up the pictures that would NEVER belong in a traditional and healthy meal.

**Discussion:** Ask students what is important to maintain good health besides eating healthily (*you will want students to zero in on physical activity*). Ask them why Karuk people used to be so physically fit (*If needed, point to their Karuk Fall Healthy Meal worksheet, and ask them how Karuk people got these foods*)? If they haven't already mentioned it, point out that in order to take care of the land, harvest and process their food, Karuk people had to be very active every day. Ask students what is needed to get deer meat? How far do people need to travel to get enough acorns to last all year? How heavy are these baskets of acorns? Do you need to be strong and fast to do all that?

**Preparation for Activity:** Tell students that they will do the Hunter/Gatherer Challenge: the object is to test their ability to do activities often required for harvesting Native foods. Standing on one leg is often needed in dip-net fishing; long jumping is needed to cross ditches or streams; balancing on your toes is needed to harvest foods that are high up, like elderberries; packing heavy weights is needed to bring the large burden baskets of acorns back to the village site; and the silent squat is important in hunting animals.

**Activity:** Divide class up into three or four groups, or do as individual activity as part of your physical education class. You may choose to ask responsible students from upper grades to help measure students' performances and add up the totals for each group. A possible "prize" for the winner(s) might be to post their completed Karuk Healthy Meal worksheet in a prominent position in the classroom.

**Vocabulary and Grammar:** Pass out the **Vocabulary and Grammar Worksheet** and have students trace the words, and draw a line to the picture. Tell them to add an “s” to the body parts that are more than one, whereby one example is given.

**Music and Movement:** Show the short **Head and Shoulders** video – both in Karuk and in English. Have students stand up and try the song first in English, then in Karuk! Song text is provided below:

Head, shoulders, knees and toes,  
knees and toes.

*axvâah, takraav, páthak káru fíthih,  
páthak káru fíthih.*

Head, shoulders, knees and toes,  
knees and toes.

*axvâah, takraav, páthak káru fíthih,  
páthak káru fíthih.*

And eyes, and ears, and mouth,  
And nose.

*Káru yúup, káru tíiv, káru apmaan,  
káru yúfiv.*

Head, shoulders, knees and toes,  
knees and toes.

*axvâah, takraav, páthak káru fíthih,  
páthak káru fíthih.*

**Karuk Vocabulary:** Tell students that to learn Karuk vocabulary can be difficult, since some of the sounds are strange to English speakers.

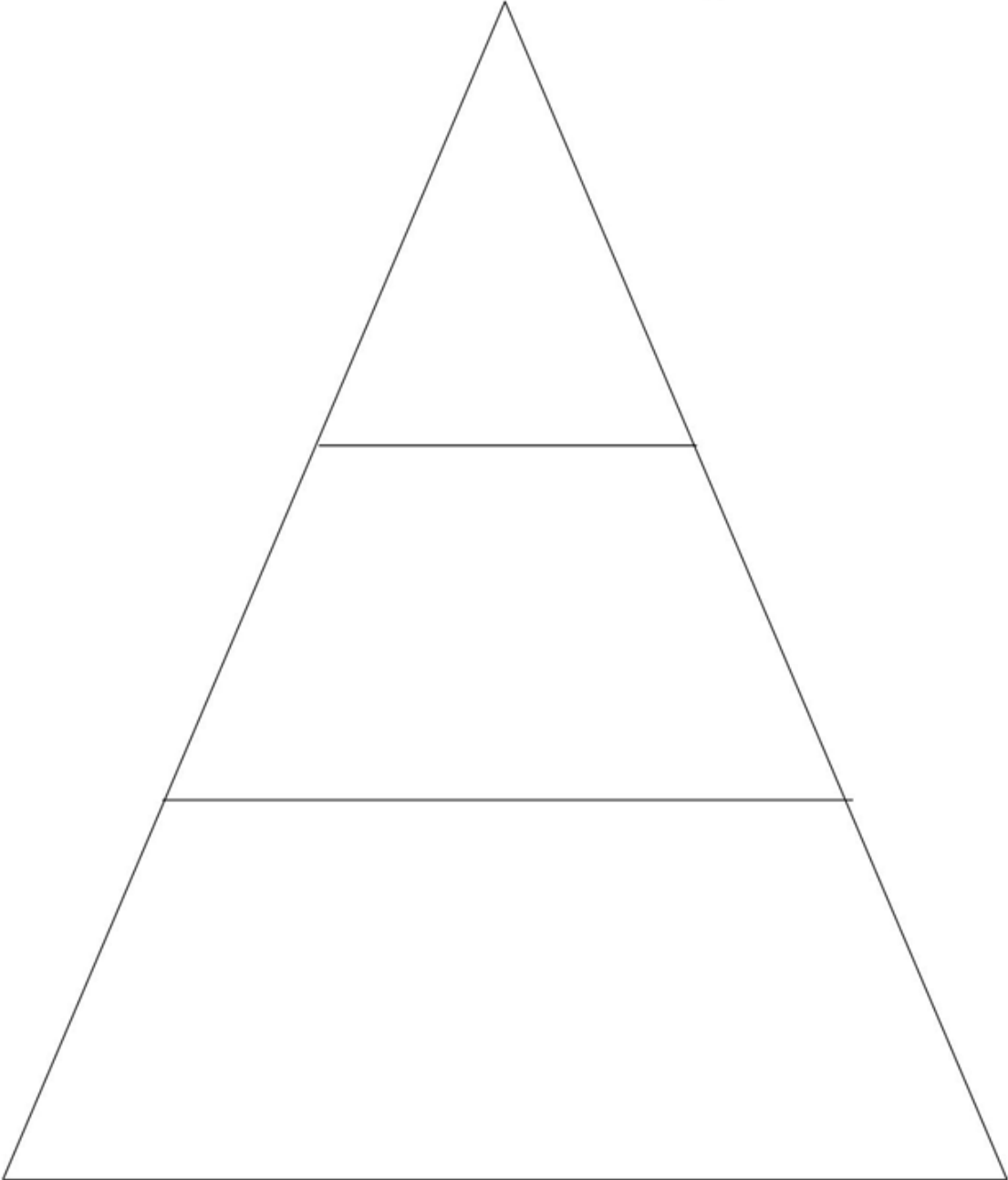
**Resources:** California Adolescent Nutrition and Fitness Program: <http://www.canfit.org>  
 American Indian Health: <https://americanindianhealth.nlm.nih.gov/eating.html>  
 Karuk Literature: <http://linguistics.berkeley.edu/~karuk/links.php>  
 Karok Myths, A.L. Kroeber and E.W. Gifford, University of California Press 1980  
 Literature Analysis: <http://www.learner.org/interactives/story/characters.html>;  
 and tailored for children: <http://www.roanestate.edu/owl/elementsLit.html>

# Food Pyramid



Name: \_\_\_\_\_

# Karuk Fall Healthy Meal







## HUNTER/GATHERER CHALLENGE

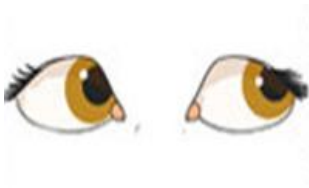
*Team up and time/measure each person's results for each activity. For the Carrying activity, you may consider using a set weight, such as a ten pound sack of potatoes/flour, and count the number of times a person can carry that weight around the basketball court. Compare averages to other teams to find who scores highest.*

<b>Team #</b> <b>Names</b>	<b>One Leg Standing (Time)</b>	<b>Jump (Distance)</b>	<b>Toe Balance (Time)</b>	<b>Carry Heavy Load (Number)</b>	<b>Silent Squat (Time)</b>
1					
2					
3					
4					
5					
<b>TOTAL and divide by number of team members for average.</b>					

Name: \_\_\_\_\_

### Vocabulary and Grammar Worksheet

Trace the words, and draw a line to the picture. Add an "s" to the body parts that are more than one. One example is given:



head\_\_

shoulder\_\_



knees

toe\_\_



ear\_\_

eye\_\_



nose\_\_

