



ELA Common Core Content Standards:

Writing Standards 2

Speaking and Listening Standards 1, 3, 4

Language Standards 1, 2, 5, 6

Estimated duration:

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.

One of the results of these conditions is, as mentioned, is an increasing rate of diet-related diseases. Many attribute this to the switch from Native and/or local foods to industrialized provisions. In addition, American Indians and Alaska Natives have physiological and lifestyle risk factors that increase even these rates of type 2 diabetes. Americans overall have tripled the number of diabetes patients in the last 30 years. Both obesity and Type 2 diabetes is steadily increasing in children. Diabetes and other diseases will continue and grow in our communities unless our children are challenged on a daily basis to make healthy choices with their diet and physical activity. And while we may not have access to all of our traditional foods, we can supplement them with new foods that have similar nutritional value

Theme/Big Ideas:	Healthy food tastes good!
Big Question:	How can we stay healthy?
Vocabulary:	marketing strategy, target audience, diabetes, glucose, disease, literal, mock-orange, bile,
Karuk Vocabulary:	xávishkunish (orange); pírishkunish (green); aaykúnish (purple); kaschíipkunish (yellow); aaxkúnish (red, also: áaxhich); ávaxkunish (brown)

Materials:

Paper and crayons for Coloring Worksheet (not included)

Food Pyramid (included)

Plate Full of Color (included in curriculum packet)

Coloring and Karuk Vocabulary Worksheets (included)

Preparation: Review lesson and instructions for activities. Copy **Food Pyramid** for document reader or prepare Grade 3 DVD image for classroom projection. Copy worksheets; prepare crayons and paper for drawing activity.

Discussion: Open the class discussion by telling students that foods are categorized or sorted in many different ways. Ask them how grocery stores group foods on their shelves. Ask them why they think this is. Answers can be: so people can find what they need; so the food that needs to be at a certain temperature can stay preserved longer, etc.

If they haven't already come to it, point out that store also put items on shelves according to marketing strategies. Explain to student that this is a compound noun, which is a noun that is made with two or more words. The first word is marketing, which is the organization of the sale of a product; for example, deciding on its price and the best areas where it would sell, and how it should be advertised. The second part of that noun is strategy, which is a careful plan or method for achieving a particular goal, such as a plan you make to convince your parents to let you spend the night at a friend's. Ask them if they can think of a marketing strategy that a store might make to sell soft drink, fresh fruits, candy or gum.

Tell students that refrigerators also have different compartments to help group foods, beverages and flavorings. Ask them if they can think of reasons to do this. Answers might be: to keep things at different temperatures to meet their preservation needs, or to prevent some tall bottles from spilling their contents.

Explain to students that the United States Department of Agriculture, called by its acronym USDA for short, sort classifies foods using the MyPyramid food guidance system to inform healthy diets. Show them the Food Pyramid on a document reader or projector and tell them that this is one version of the USDA food pyramid. Ask them why they grouped the foods like this, and why they arranged the food groups into a pyramid form. When they have finished, ask them if they think that this is a good way to teach people about food choices.

Tell students that recently, both the food pyramid and marketing sorting strategies are being challenged by western scientists, schools and parents. Ask them why this might be so.

Historically Native Americans peoples maintained a balance lifestyle through proper eating habits, physical activity and a culture of reciprocity. Indigenous worldviews still connect healthy ecosystems with the people who inhabit and maintain them. We practice this by caring for our environment, showing appreciation through offerings, and sharing food with elders and our community.

Preparing for Reading: Tell students that the picture book they will be reading is one in a series of four developed by the Indian Health Service, or IHS for short. The IHS is a United States health care agency for Native Americans and Alaska Natives. They, too, have marketing strategies: the target audience for this series is mainly young Native Americans, but it is also meant to appeal to non-Native students. A target audience is the particular group of people to which an advertisement, a product, a website or a television or radio program is directed. Explain to students that IHS publishes this series out of a concern for the health of both Native

and non-Native Americans. Ask them if they can guess what that might be. If they haven't already guessed, tell students that this book series talks about diabetes and diabetes prevention. Ask them if they know what diabetes is, or if they know someone with this disease (*if students have had Nanu'avaha Kindergarten, First, or Second Grade Lesson 10, ask them if they can remember what diabetes means. Suggested answer: it is a serious disease in which the body cannot properly control the amount of glucose, or sugar, in your blood*). You may need to explain that a disease is an illness that affects people, animals or plants. Tell or remind them that while some people are born with one type of diabetes, the second type is preventable. Today, however, 1 out of 3 American children born will develop diabetes over their lifetime. Furthermore, American Indians and Alaska Natives are 2.6 times more likely than that to get this Type 2 diabetes.

Reading: Assign a good reader to read **Plate Full of Color** aloud to students.

Comprehension: Evaluate listening comprehension by asking the following prompts:

- What kind of gifts do Mother Earth give to the people? (*Suggested answers: flowers, fruits, vegetables, animals, fish, water, etc.*)
- What kinds of things do the children name that grow in gardens? (*Suggested answers: carrots, green beans, squash, cucumbers, pumpkins, corn, watermelon, etc.*)
- What other kinds of things that grow did they name? (*Suggested answers: apples, strawberries, and grapes*)
- Why doesn't Thunder Cloud want to participate in the discussion? (*Suggested answers: he doesn't like vegetables, he doesn't eat things out of a garden*)
- How will the children include more fruits and vegetables in their diet? (*Suggested answers: eat fruit or carrot sticks for snacks, make their meals full of color*)

Physical Activity: Mark off an area for the "Animal Race" into four or more stretches or one animal per circle of playground, etc. Have students stand up in a straight line. Direct them that from the first line (or in the first circle) they will "jump like a rabbit", from the second line they will "crawl like a lizard", and so on.

- 1) Jump like a rabbit, 2) crawl like a lizard, 3) fly like an eagle, 4) run like a deer, etc.

After the students have finished, guide them in a discussion about their experience. Reinforce the idea that doing the exercise in this way shows them that they need to control and use their minds and bodies to be able to move quickly. This is one of the gifts discussed in their lesson text: With a healthy diet that makes their bodies strong, they can play and run on Mother Earth – which will also help them keep their spirits strong.

Karuk Vocabulary: There are many options to choose from when in doubt on the pronunciation of Karuk words: 1) invite a language speaker to help students (and teachers!) learn the word pronunciations; 2) refer to or help students use the Karuk Pronunciation Guide for tips (included in binder); 3) play and listen to the sound files for these word available on the Karuk Online Dictionary (see link below); 4) have fun with the students trying to sound out the words – and teach them to be respectful of others who are trying!

Tell students that Karuk is a very literal language, which means that that the words are often *just what they really are*. For example, **pírishkunish** is the word for green, and its literal meaning is “looks like grass.” There are a couple of colors that have more than one Karuk translation, since the color named is really just an explanation of what it looks like. White, for example, can be translated into **taahkúnish**, which means that it looks like snow. Karuk speakers also use the word **chánchaafkunish**, which means that it looks like the foam on the river or ocean. One word has a few colors associated with it, for the reason that this color can’t be easily translated – some people see it differently. That word is one of the extra credit points, so you might want to keep the translation to yourself: **thúkinkunish** means “looks like bile.” You may need to explain that bile is a bitter liquid made and stored in the body that helps to digest fat.

xávishkunish (orange); **pírishkunish** (green); **aaykúnish** (purple); **kaschípkunish** (yellow); **aaxkúnish** (red, also: **áaxhich**); **ávaxkunish** (brown)

Activity: Pass out the **Coloring and Karuk Vocabulary Worksheet** and crayons/markers.

Resources:

Karuk Pronunciation sound files and dictionary: <http://linguistics.berkeley.edu/~karuk/links.php>

Diabetes in American Indians and Alaska Natives (NDIC, NIDDK, NIH) www.niddk.nih.gov

Native Diabetes Wellness Programs, www.cdc.gov/diabetes/eagle/index.html

DETS (Diabetes Education in Tribal schools. www.hasketll.edu/soe/nihdets.htm

American Indian Games Manual, 24 traditional games. Classroom exercise Break Box, <http://hscunm.edu/pathways/Downloads/patvity.htm>

Food Pyramid



Name: _____
xávishkunish

Coloring and Karuk Vocabulary Worksheet

Color the worksheets according to the Karuk word instructions below. Hint: if you don't know what these words mean, look up the word translation in the box below.

xávishkunish (orange);	pírishkunish (green);	aaykúnish (purple);
kaschíipkunish (yellow);	aaxkúnish (red);	ávaxkunish (brown);
xávishkunish	aaykúnish	

If **kúnish** means "like" or "looks like," and you know that **xávish** is the Karuk word for "mock orange," then you might guess that **xávishkunish** is the word used for the color orange.

Now guess the Karuk words for: mud _____; grape _____;
 blood _____; grass _____.

For extra credit, have someone help you look up **kaschíip** in the Karuk Online Dictionary for its meaning: <http://linguistics.berkeley.edu/~karuk/karuk-dictionary.php> and tell the class!

