The Gumbo Pot



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Pointe Coupee Parish
Louisiana

Objective/Agenda

- The Gumbo Pot is a series of activities used to explore Louisiana products grown and harvested on the farm or harvested from our natural resources. Our project begins with a brief history of gumbo and how the name came to be......
- Our students in fourth grade explore products grown in Louisiana and Pointe Coupee Parish. The students will bring in a recipe and decide which type of gumbo they have. Their final project is a presentation on their crop.

KWL chart – Lesson 1 (Assess what my students know)

<u>K</u> <u>W</u> <u>L</u>

Why are the recipes different?

Why do some people use file'?

We do not need a recipe.

My grandmother makes a large pot.

Lots of people come over to eat the

Gumbo.

Is food is found in Louisiana.

Different recipes.

What is gumbo?

In Louisiana, gumbo is a stew or soup. It usually has meat or shellfish and vegetables. There are three types of gumbo: **okra, file' and roux**. Okra, file' and roux are used to make gumbo thick.

The History of Gumbo

Gumbo is typically divided into two varieties, Creole and Cajun. "Creole" after the Louisiana Creole people, descendants of French and Spanish settlers who lived in New Orleans and southeastern Louisiana and "Cajun" descendants of Frenchspeaking settlers who were ran out of Acadia and lived in southwestern Louisiana. Creole gumbo most often has seafood, tomatoes and a thickener. Cajun gumbo has a dark roux and file' is usually used.

Gumbo Definitions

<u>roux</u>-made by mixing equal amounts of flour and oil, cooking it until it is dark brown in color.

Used to make gumbo thick.



<u>okra</u>-is an African vegetable. It is believed by some that okra was brought to American by slaves during the early 1700's. Creoles learned about okra from the slaves.



<u>file'-</u>is made from ground sassafras leaves. It was used as a medicine by the Choctaw Indians of Louisiana, Mississippi and Alabama. It was also used as a way to make gumbo thick.



sassafras-trees grown in Louisiana. Leaves are used to make file'.



Gumbo Types

Questions that students will ask themselves to decide which type of gumbo recipe they have brought in for research.

- 1. Does my gumbo recipe have roux in it? (oil and flour)
- 2. Does my gumbo recipe have okra in it?
- 3. Does my gumbo recipe have file' in it?
- 4. What type of gumbo recipe do I have?

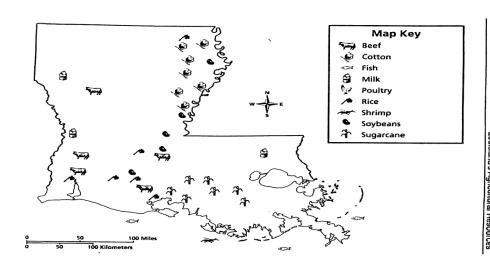
<u>Student Recipes</u> – Lesson 2 (recipes)

Students bring in any gumbo recipe from home.

In groups of three, the students decide what types of gumbo their recipe would make. Okra? File'?

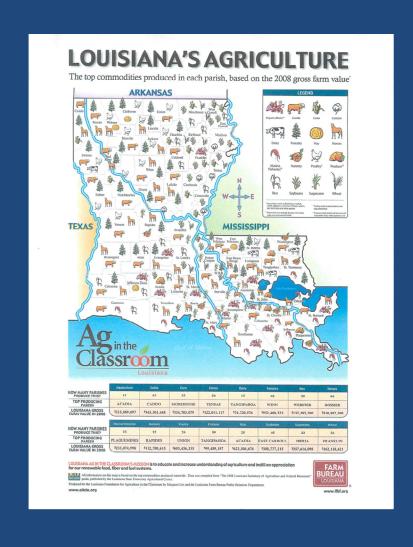
Roux?

Louisiana Products – Lesson 3 (where can they be found?)



- 1. Which part of Louisiana is sugarcane resources found?
 - a. northern
 - b. southern
 - c. western
 - d. eastern
- 2. According to the Map Key, which resource is not found in Louisiana?
 - a. poultry
 - b. cotton
 - c. beef
 - d. soybeans
- 3. Does Louisiana have more resources of cotton or milk?
 - a. milk
 - b. cottor
- 4. Is cotton produced more in the northern or southern part of Louisiana?
 - a. northern
 - b. southern

Where are the products located?



What are Louisiana Products (map skills)

This is a list of crops grown in Pointe Coupee Parish.

Cotton Cabbage

Forestry Cantaloupe

Christmas Trees Carrots

Strawberries Cauliflower

Corn Collards

Grain Sorghum Cucumber

Oats Eggplant

Tomatoes Garlic

Hay Irish Potatoes

Pecans Lima Beans

Rice Mustard

Soybeans Okra

Sugarcane Onions

Beets Bell Peppers

Broccoli Pumpkin

Green Onions Shallots

Snap Beans Southern Peas

Spinach Squash Sweet Corn Turnips

Watermelon Wheat

Crawfish Alligators

Ag Product Sheets — Discuss La Products and continue with map skills

CORN

A COMMODITY FACT SHEET COMPILED BY THE LOUISIANA AG IN THE CLASSROOM PROGRAM



HISTORY

Corn is a grass native to America which the people in Central Mexico cultivating it at least 7,000 years ago. Corn was a staple in the diet of many Indian groups. They used all parts of the corn. The sugary leaves were used as a sort of chewing gum, immature corn was their vegetable and dry, mature kernels were ground into flour.

Today, corn is grown on every continent except Antarctica. Corn is the No. 1 grain crop in the United States. Most corn grown in the U.S. is a variety called field corn or dent corn, which is used as livestock feed and processed into a variety of products. The corn most of us eat is called sweet corn.

PRODUCTION

Corn is planted in the spring from a seed called a "kernel." The seed will grow into a stalk which then produces ears of corn. The ears of corn mature over the summer. When they are ready to harvest, in late August or early September, they will turn downward to the ground. Producers use a machine called a combine to harvest the corn.

Once in the combine, the ears enter a sheller. The sheller is a metal cylinder that rotates at a high speed and removes all husks and kernels from the cob. The corn is then loaded onto trucks and transported to a nearby grain elevator. The corn is stored at the elevator in bins until it is sold and shipoed out for processine.

An ear of corn averages 800 kernels in 16 rows. An acre of corn yielding 100 bushels produces approximately 7.280,000 kernels

PRODUCT

There are more than 3,500 different uses for corn. Primary products are cornstarch, sweeteners, food and industrial items.

There are many edible uses for corn including aspirin, marshmallows, ice cream, cereals, corn chips, cornmeal, baking mixes and more.

Some non-edible products that contain or are made from corn include ethanol, book binding, ink, glue, shoe polish, cosmetics, fireworks, paint, paper, crayons, chalk, toothpaste, soap, candles, batteries and charcoal.

There are more uses being found every day for corn.

NUTRITION

Corn is a member of the vegetable group. Everyone should have 3-5 servings from this group each day. Corn is low in fat and calories and provides almost three grams of dietary fiber per ear. The starch found in

Agin the Classrom

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http://www.aitcla.org/files/ commodity_handout_sheets.pdf

SOYBEANS

A COMMODITY FACT SHEET COMPILED BY THE LOUISIANA AG IN THE CLASSROOM PROGRAM



HISTORY

Soybeans date back 5,000 years ago to China. The Asian legume was cultivated from its wild state into a food crop. Soybeans first came to the United States in 1804, arriving aboard a clipper ship from China.

By the mid-1800s, farmers were growing soybeans as food for their livestock. By the 1900s, soybeans were growing on American farms as a food crop. At that same time, extensive research began on the bean.

George Washington Carver's work changed the way people thought about soybeans. It became much more than forage crop when it was discovered there was value in the protein and oil. It was in the 1940s that soybean farming really took off in America. World War II devastated bean fields in China and U.S. farmers filled the gap. Henry Ford saw soybeans as a boon to various industries and made plastic for cars and other uses. The United States is now the No. 1 producer of soybeans in the world. We use about one-half of all the beans we grow, so we also are a large exporter of the beans. In Louisiana, soybean acreage remained small until the 1960s. Most of the acreage today is concentrated on the alluvial river soils of Northeast and Central Louisiana. The crop is well-suited to Louisiana because it can grow on a wide variety of soil types.

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Louisiana

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PRODUCTION

The soybean plant is a legume. A legume is a plant that has nitroepen-fixing nodules on its roots. The plants help replenish the nitrogen in the soil. Soybeans are a summer annual planted in May or early June. It usually takes 75-80 days for the beans to fully mature. Mature plants may reach a height of three feet. When mature, the foliage begins to shrivel and the leaves fall away. They are ready to harvest in September or October. Harvest must be completed before the bean pods burst open. All harvesting is done by machine. The harvested beans are taken to a storage bin with a dryer. The beans are died to reduce the amount of moisture they contain so the beans will store well for lone periods of time.

PROCESSING

During processing, soybeans are first graded, cleaned, cracked, dehulled, and rolled into flakes. The flaking ruptures the oil cells in the bean, which makes extracting the oil easier. Once the oil is removed, the flakes are processed into soy protein products or used to produce animal feed.

Ag Sheets cont.

CRAWFISH

A COMMODITY FACT SHEET COMPILED BY THE LOUISIANA AG IN THE CLASSROOM PROGRAM



HISTORY

Native Americans in the area were the first credited with harvesting and consuming crawfish even before the Cajuns arrived on the scene. They used to bait reeds with venison (deer meat), sick them in the water and periodically pick up the reeds with crawfish attached to the bait. By using this method, the Native Americans would catch bushels of crawfish for their consumption. History records show that sugarcane plantations in New Orleans in the late 1700s used small ponds to grow crawfish.

Although crawfish had been consumed for centuries by both native Americans and Europeans, commercial sale of crawfish in Louisiana only began in the late 1800s. At that time, supplies of wild crawfish were harvested from the natural waters of the Alchafalava Basin.

During the 1930s, with the development of improved transportation and cold storage, crawfish markets in Louisiana shifted from local consumption in rural areas to metropolitan areas such as Baton Rouge and New Orleans. During this same period, the adoption of crawfish nets resulted in much more efficient harvest methods.

By the 1950s, the crawfish trap was widely used and the practice of reflooding rice fields after harvest became commonplace as a method to
produce crawfish for harvest during the autumn, writer and early spring.
This practice of crawfish 'farming' eventually spread to impounded
woodlands and marshland as well. By the mid-1960s, acreage had
increased to approximately 10,000 acres of managed crawfish ponds. At
this point, an industry based on peeling crawfish became established,
which in turn fueled further expansion of both crawfish farming and wild
harvests. Acreage continued to increase, from approximately 44,000
acres in the mid-1970s to current levels of roughly 116,000 acres. In
2006, the crawfish harvest in Louisiana increased to about 70 million
pounds of pond-raised crawfish and 8 million pounds of wild crawfish.

Limited harvests of farmed crawfish occur in other states, such as Arkansas, South Carolina and Texas. Official estimates are not available, but industry observers suggest that Louisiana typically accounts for 90 percent of total U.S. production, depending on the season in question.

FACTS

Crawfish (Procambarus clarkii), also called crayfish, crawdads, and mud bugs, are freshwater crustaceans found on every continent except for Africa. In appearance they greatly resemble the lobster, but are much smaller. Crawfish range in size between 3 to 10 inches depending on the species and the location. They grow throughout a series of molts by which they shed their exoskeleton and produce a new one. A crawfish nearty doubles its size with each molt.



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DICI

A COMMODITY FACT SHEET COMPILED BY THE LOUISIANA AG IN THE CLASSROOM PROGRAM



HISTORY

Rice has fed more people over a longer period of time than any other crop. Rice cultivation has been documented as far back as 2800 B.C. Beginning in China, its cultivation spread throughout Sri Lanka and India. It then passed on to Greece and areas of the Mediterranean.

Rice travelled to the New World from Europe. The history of rice in North America began with its colonization. Sir William Berkeley of Virgina first grew rice on a large scale in 1647. It was then successfully introduced into the Carolinas. By the time America gained its independence, rice was one of the country's major agricultural businesses. The Chill War destroyed most of the farms in the east. Rice production then moved weshward. At the turn of the 20th century, rice was well established in what are today's major Southern rice growing states – Arkansas, Louisiana, Mississippi, Missouri and Texas. In 1264, the discovery of gold in California brought people of all nations to this U.S. Territory. To feed the many Chinese immigrants whose staple food was rice, California also started its own rice productions.

In Louisiana, rice was first introduced in 1718 by French explorers. It wasn't until the 1800s with the coming of the railroad and discoveries made by Dr. Seaman A. Knapp that rice production took off in the state. Settlers moved in, bought land, and put it into rice production.

Technological advances in farm machinery and irrigation pumps made rice farming profitable. By the 1900s, Louisiana produced more than half the rice in the United States. A very special combination of climate and terrain is necessary to produce the high quality rice for which the U.S. is known. This special combination exists in Arkansas, Louisiana, Misssstppi, Missouri, Texas and California.



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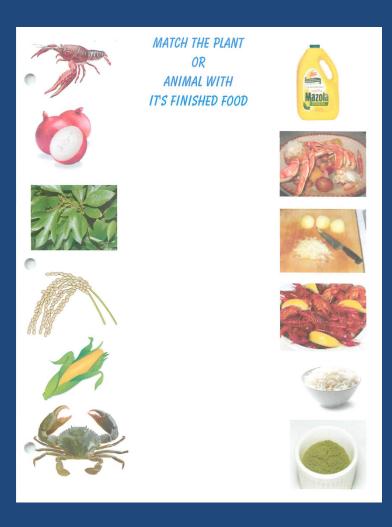
PRODUCTION

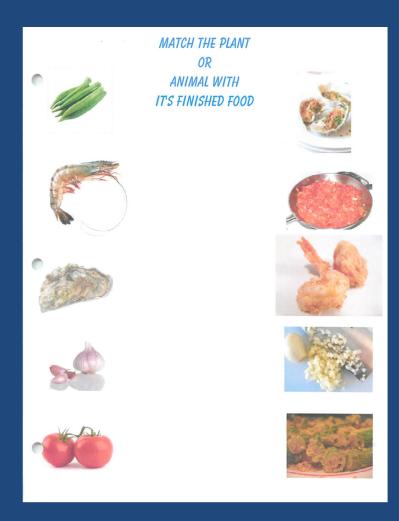
First, fice farmers prepare their soil for planting. Special equipment is used to shift the soil and level and smooth the field. Small levees maintain water on the flooded fields at a uniform depth. Fields are slightly sloped to allow the fields to be drained when needed. Either grain drills or airplanes plant rice in the early spring. Grain drills plant the seed rice directly into the soil at a constant rate and depth. Aerial seeding means planes drop seeds over flooded or dry fields. A good supply of fresh water is extremely important to rice farming. Rice land is covered with two to three inches of water during most of the growing season to inhibit weed growth.

Depending on the variety, rice grows to maturity anywhere from 100 to 180 days after planting. Once the rice is fully mature, the water is drained from the field and combines harvest the rice. This "rough rice' is transported by truck to a rice dryer. Rice dryers are used to remove the moisture from the grain for storage. Once dry, the rice may be safely stored. When rice is harvested, it has a non-edible hull surrounding the kernel.

Match the Plant or Food – Lesson 4

(students are exposed to various crops)





Letter Writing –Lesson 5 (Class letter to local farmer)



Congratulations Ms JoAnn on winning the Agriculture Award!!!

Well, we have been very busy lately!! We have fertilized our 200 acre cane crop. We also have planted about 1200 acres of soybeans so far. We still have more to plant but it's been really hard with all the rain we've been having. We will be able to get back in the field by this weekend to finish up. We are hoping to start cutting our wheat next week. We have 700 acres of wheat which will take about 7 days to cut. After we cut all the wheat, we will burn the fields and plant soybeans on that ground. So we will be very busy for a few more weeks.

I enjoyed hearing about everyone's Easter holidays. My family and I had a great Easter! We are lots of crawfish and enjoyed being with all our family. We had a big Easter egg hunt but we didn't have a golden egg. We enjoyed the kids being home for the week and not having to get up early to get them to school. During the Easter break, my son wanted to buy some chicks. So we decided to build a big chicken coupe and we bought 30 chicks from Cow Town!! The chicks are the same size but all different colors. My kids think they are so much fun to watch run around.

I hope you all enjoy your school garden of green beans and zucchini. Last week, we planted a small garden with tomatoes, cucumbers, watermelon, and cantaloupe. The watermelon is my favorite!! I hope everyone has a great summer!!

And remember to thank a farmer for helping feed the world:)

Damian Glaser



Math Skills – Lesson 6 (students use math skills to double and triple recipes)

Gumbo

Ingredients

- 1/2 cup vegetable oil
- 1/2 cup all-purpose flour
- 1 large onion, diced
- 1/2 cup chopped fresh parsley
- 1/2 cup chopped celery

Ingredients

1/2 cup chopped green bell pepper

1/2 cup chopped red bell pepper

1/2 cup sliced scallion

6 cloves minced garlic

4 cups chicken broth

1 teaspoon salt

1 teaspoon creole seasoning (Tony Chachere's)

2 lbs any combo of sausage or 2 lbs shrimp or

2 lbs chicken (etc.)

Students will use customary united of measurement to double and triple their recipes. They will be placed in groups of two to work on each recipe.

Make file/flour – Lesson 7 (students make file and flour)

How to Make File'

- 1. Harvest the leaves in the fall.
- 2. Clean the leaves with water.
- 3. Dry the leaves and hang in a cool, shady spot.
- 4. Remove the leaves from the stem when dry.
- Crush the leaves by hand.
- 6. Grind the leaves.
- 7. Sift the ground powder.
- 8. Store in a jar with a tight lid.



Sassafras leaves on tree.

To grind leaves with a mortar and pestle:

- 1. Cut the stems from the leaves.
- 2. Crush the leaves by hand.
- Place the crushed leaves in the mortar.
 - Use the pestle and slowly mash and grind the leaves in a circular motion.
 - When the leaves are finely ground sift the powder to remove any pieces of stems.
 - 6. Store in a container with a tight lid.



Three shapes of sassafras leaves.

What is a mortar and pestle? A mortar is a bowl that holds the leaves to be ground.

What is a pestle? A pestle is a straight tool with a rounded end used to grind things
in the mortar.

Examples of mortars and pestles.







HOW TO MAKE FLOUR FROM WHEAT

In Louisiana, wheat is harvested in April and May. When it is harvested the wheat kernel is removed from the hull in the combine. When the wheat is brought to the mill it is then ground into flour. If the whole kernel is ground the flour is called whole wheat flour. This is what you will be making in class

- Using the mortar and pestle place a few grains of wheat into the mortar.
- Take the pestle and slowly start to press and grind in a circular motion.
- 3. Keep grinding and pushing the kernels down to the bottom.
- 4. Continue grinding until all the kernels are ground into flour.

Garden Area – Lessons 8, 9, 10 (students

investigate seeds and review proper garden etiquette)





Okra Plants









Student Work









Grading Rubric

Dear Parents/Guardians,

Our fourth graders are currently studying plants and animals in science. To go along with this unit we are beginning an agriculture project titled, "The Gumbo Pot". Students are to bring in a copy of their favorite family gumbo recipe. We will be using this recipe to select an ingredient to research. Once their ingredient has been selected the students will be doing research on the ingredient. They will present their finding to the class on a poster or a power point presentation.

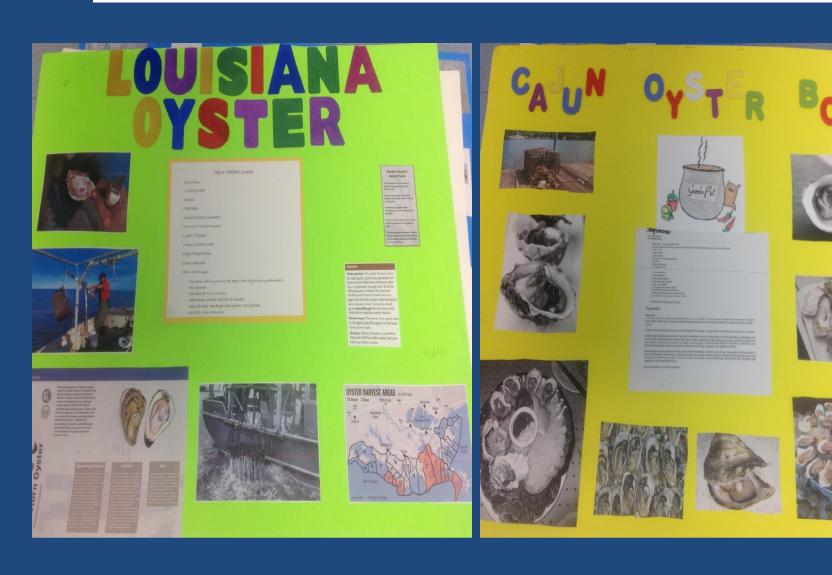
Attached you will find the rubric used to grade this assignment. Please review it with your child so their project will be done correctly. If you have any questions contact us.

Thank You,
Fourth Grade Teachers

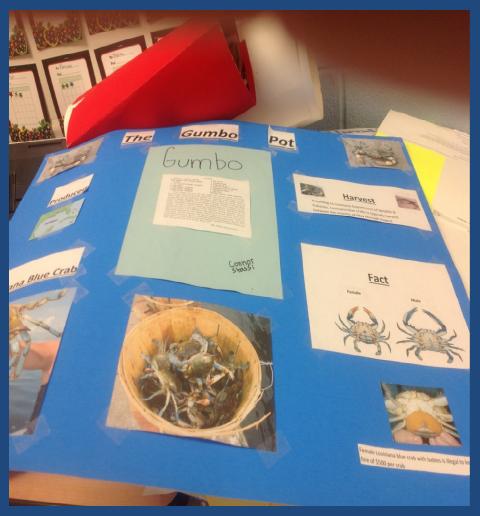
Gumbo Project Rubric

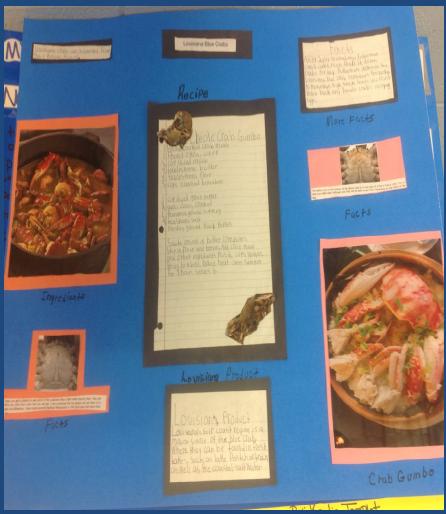
Name:
Research Ingredient:
Your project must be displayed on a regular size poster and include the following:
Title of presentation
Copy of gumbo recipe
Pictures of ingredient you are
researching
Answers to the following questions:
Is your ingredient a Louisiana product?
When is your ingredient harvested or
hunted?
Where in Louisiana is your product
grown/produced?
Other important facts about your product. (At least 1 other fact)
Due:

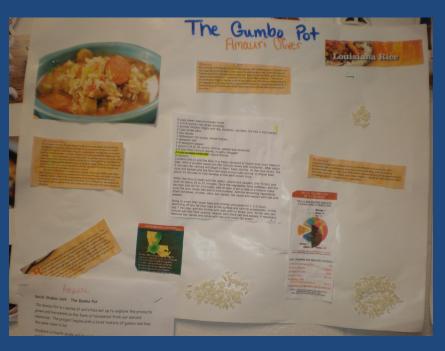
Student Projects/Presentations

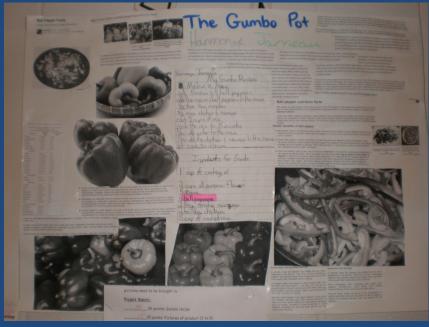


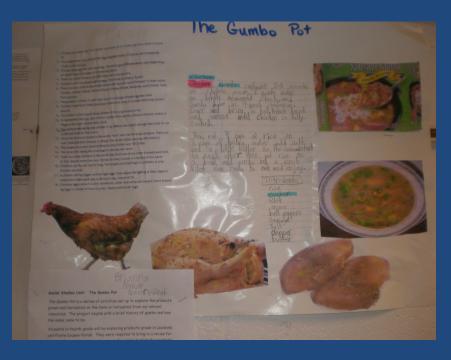
Student Projects/Presentations





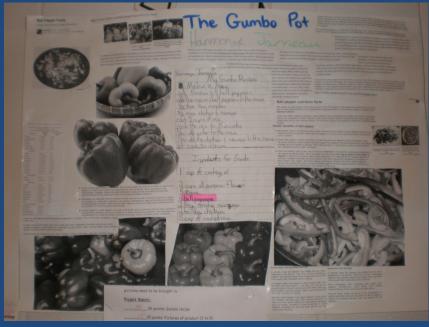


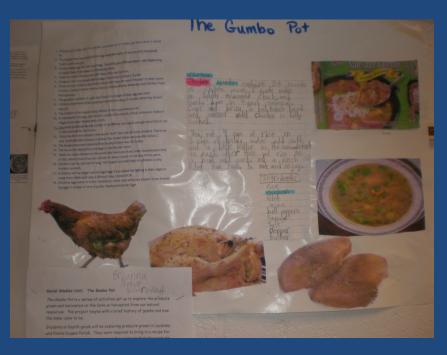


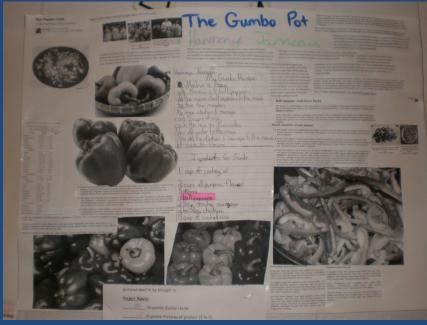












Review/Written Assessment

and livestock.	is the process of g	rowing and harvesting liv	ing things, like crops
2. Agriculture provi	des you with for shelter.	for clothes,	for your body
3. Crops like tomato	es, rice, and wheat a	ire	
4. Resources like sh	rimp and crabs are _	·	·
5. Farmers and fishe	ermen make a living	by	
6. Most crops are ha	rvested by	today.	
7. The state food of	Louisiana is	·	
8. Gumbo is a stew	or soup, thickened u 	sing,	, or
9. Okra is a vegetab	le originally from _	•	
10.File' is made from	m ground	·	
11.A	are tools use	ed to grind leaves or grain	S.
12. The mortar is the			
13.The	is a straight	tool with a rounded end	ı .
14	is made from a	mixture of flower and o	il.

The G	um	oo Pot - Louisiana Agriculture			
Multip	le	Choice choice that best completes the statement or	answe	ers the question.	
raemy		Agriculture provides you with		,	
	١.	a. fiber for clothes	c.	materials for shelter	
		b. food for your body	d.	all of the above	
	2.	What is the state food of Louisiana?		oysters	
		a. crawfish b. gumbo		roux	
		o. guinoo	u.	Tour	
	3.	In Louisiana, gumbo is a	_·		
		a. stew or soup	c.	made up word	
		b. style of dance	d.	seafood	
	4.	What are the three ingredients commonly	used t	to make gumbo thick?	
		a. rice, sausage, chicken	c.	okra, file', and roux	
		 seafood, tomatoes, file' 	d.	Creole and Cajun	
		Where do the products in gumbo come from	n ?		
	٥.	a. the grocery store	с.	factories	
		b. harvested from natural resources or		other countries	
		grown on farms for sale			
		What is file' made from?			
	6.	a, wheat	c.	okra	
		b. ground sassafras leaves		rice	
		-			
	7.	What continent is okra originally from?		Europe	
		a. Africa b. North America		South America	
			-	South / Interior	
	8.	Farmers and fisherman make their living	bу	· · · · · · · · · · · · · · · · · · ·	
			c.	keeping all of their crops to themselves	
		or harvest b. buying food at the grocery store			
	9.	Commodities like wheat, tomatoes, and rice	ce are	usually	
		a. grown on farms	b.	harvested from natural resources	
	10	Commodities like shrimp and crabs are us	ually		
	10.	a. grown on farms	b.	harvested from natural resources	
				into Gno novedom?	
	11.	What tool is used to grind sassafras leaves a. food processor	or wn	blender	
		b. grater		mortar and pestle	
				,	
	12.	The mortar is the		and the same of the same dead and	
		a. bowl	b.	straight tool with a rounded end	
			1		
			,		

Subject Areas covered:

- **ELA** Letter writing to local farmers
- Math-measurement of seeds, weight of products, customary measurement in recipe, double and triple recipe
- <u>Science</u>-seeds, germination, sprouts, root vegetables, pollination
- **Social Studies** map skills

Common Core/GLE's (fourth grade)

- MA.4.CCSS.Math.Content.4.NF.A.2
- MA.4.CCSS.Math.Content.4.NF.B.3b
- LA.4.CCSS.ELA-Literacy.W.4.1a
- LA.4.CCSS.ELA-Literacy.W.4.4
- LA.4.CCSS.ELA-W.4.3c
- LA.4.CCSS.ELA-Literacy.W.4.3d
- LA.4.CCSS.ELA-Literacy.W.r.3b
- LA.4.CCSS.ELA-Literacy.W.4.2d
- SCI.4.46
- SOC.4.5
- SCI.4.40
- SCI.4.14
- SOC.4.1
- SOC.4.3
- SCI.4.47

Resources

Books:

Grandma's Gumbo – Written and Illustrated by Deborah Ousley Kadair

Mrs. Spitzer's Garden – Written by Edith Pattou, illustrated by Tricia Tusa

Websites: March on /

http://www.statesymbolsusa.org

http://www.brainpop.com/socialstudies/famoushistoricalfigures/lewisandclark/preview.weml

http://www.brainpop.com/socialstudies/famoushistorialfigures/napoleonbonapart/preview.weml

http://www.brainpop.com/socialstudies/ushistory/westwardfexpansion/preview.weml

http://www.pbs.org/teahers/connect/resources/5040/preview/

http://lpb.archive.pbslearningmedia.org/content/idptv11.sci.life.oate.d4klcl/

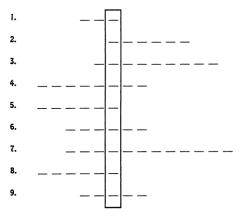
Questions and Answers

How can you adjust this to your state?
Where can I find these resources?
What is a good recipe that you can adapt?
This project concluded over a four week period.

Audience Review

Louisiana Products

Fill in the blanks with the word that fits the blank spaces and answers the clues listed at the bottom of the page. The blocked letters, read vertically, spell out the answer to the 10th clue. (HINT: If the word does not fit the amount of blanks for that clue, it is NOT the right answer!!)



Clues:

- 1. Made from petroleum
- 2. It's slimy, has 2 shells, and can be eaten raw or cooked
- 3. Louisiana is one of the U.S.'s largest producers of this "sweet" crop
- 4. In the spring we have "boils" and eat these red crustaceans with family and friends
- 5. After falling off the tree, these nuts are used to make Louisiana pralines
- 6. This shellfish can also be boiled, but its pinkish white "meat" sure tastes good fried
- 7. These red berries are the main attraction at a Pontchatoula festival
- 8. Your clothes can be made out of this product's fluffy, white fibers
- 9. A big deal in Ruston, Louisiana, the skin of this fruit can sometimes be "furry"
- 10. The 18th state admitted into the U.S.