

## **Tested & Approved STEM Activities**

# RECIPE FOR A REGION

# Activity Guide



**Resources For Libraries** 

A product of the Science-Technology Activities and Resources for Libraries (*STAR\_Net*) program. Visit our website at <u>www.starnetlibraries.org</u> for more information on our educational programs. Developed by the Lunar and Planetary Institute/Universities Space Research Association August 2014



This material is based upon work supported by the National Science Foundation under Grant No. DRL-1421427. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

# RECIPE FOR A REGION

## **Overview**

Children, ages 10 to 13, celebrate their region of the United States and consider the ways in which climate makes it a unique place. Teams of children identify a type of food unique to the region and select a recipe that features that ingredient in children's cookbooks. The children discuss their collective efforts as a regional meal that is suited to the climate of the region.

## **Activity Time**

30 minutes (longer if the recipes are prepared and eaten)

## Intended Audience

Tweens ages 10-13

## Type of Program

 Facilitated hands-on experience
 Station, presented in combination with related activities
 Passive program (with modifications)
 Demonstration by facilitator

## What's the Point?

- Earth's systems interact to create the *usual* temperature and precipitation or climate and make each region special.
- Climate dictates the varieties of plants and animals that inhabit a region. Climate influences human activities, including what clothing and gear we keep on hand and what crops we are able to grow.
- Other regions of the United States are unique in their own way and children living there may have experiences that are different from ours.

## **Facility Needs**

- □ Furniture for small groups to sit and look through recipe books
- Optional: Access to online information about your region's agricultural products
- Optional: Cooking facilities and implements for preparing the children's recipes
- □ Optional: Dining area for sampling regional foods or prepared recipes
- □ Access to a photocopier

A product of the Science-Technology Activities and Resources for Libraries (*STAR\_Net*) program. Visit our website at <u>www.starnetlibraries.org</u> for more information on our educational programs. Developed by the Lunar and Planetary Institute/Universities Space Research Association August 2014

## **Materials**

## For the Facilitator

- □ Brief Facilitation Outline (below)
- Background Information (below)

## For Each Group of 10-15 Children

- □ A selection of cookbooks
- □ 3-5 (8 ½" x 11") copies of the *Recipe Card* for their region, printed double-sided on card stock (below)
- □ 3-5 pencils or pens
- Optional: Regional foods, either in small quantities for tasting or in large quantities for cooking
- Optional: A regional snack recipe and the ingredients for the children to prepare themselves during the program

## **Supporting Media**

#### **Books**

Cooking Rocks! Rachael Ray 30-minute Meals For Kids Racheal Ray, Lake Isle Press, Inc. 2004, ISBN 1891105159

#### Salad People and More Real Recipes

Mollie Katzen, Tricycle Press, 2005, ISBN: 1582461414

#### The Mitsitam Café Cookbook

Richard Hetzler, Fulcrum Publishing, 2010, ISBN: 155591747X While many of these recipes from Smithsonian National Museum of the American Indian are complex, they often feature unique regional ingredients. Tweens ages 10-13 may find the recipes "Fiddlehead Fern Salad," "Crabapple and Cranberry Relish," and Cranberry Crumble" applicable to this activity.

#### State Shapes series

Black Dog & Leventhal Publishers, 2000-2010 Appropriate for ages 9-12.

#### Stories from Where We Live

Essays and poetry bring the regions of the United States to life. Each anthology features an appendix, which includes information about the region's habitats, animals and plants, and parks and preserves.

#### The Great Lakes

Sara St. Antoine and Trudy Nicholson (Editor), 2003, Milkweed Editions, ISBN: 1571316396 Appropriate for ages 9-13.



#### The Great North American Prairie

Sara St. Antoine (Editor), 2001, Milkweed Editions, ISBN: 1571316302 Appropriate for ages 9-13.

#### The South Atlantic Coast and Piedmont

Sara St. Antoine and Trudy Nicholson, 2006, Milkweed Editions, ISBN: 1571316647 Appropriate for ages 9-13.

#### The California Coast

Sara St. Antoine, 2005, Milkweed Editions, ISBN: 1571316531 Appropriate for ages 9-13.

#### The North Atlantic Coast

Sara St. Antoine, 2004, Milkweed Editions, ISBN: 1571316434 Appropriate for ages 9-11

#### The Gulf Coast

Trudy Nicholson, Paul Mirocha, Katrinka Moore, and Sara St. Antoine (Editor), 2002, Milkweed Editions, ISBN: 1571316361 Appropriate for ages 12-18.

#### Earth's Climate (Weather and Climate)

Robin Birch, Benchmark Books, 2009, ISBN: 0761444718 This book showcases each of the climate zones of the world, and concludes with a look at how global ocean currents and winds help create an area's climate. Children ages 9-12 may enjoy the maps, colorful diagrams, and photographs of featured animals and plants.

#### **Online Resources**

#### **Examples of Earth's Climate Zones**

www.esrl.noaa.gov/gsd/outreach/education/climgraph/docs/cg\_14a.pdf www.esrl.noaa.gov/gsd/outreach/education/climgraph/docs/cg\_14b.pdf These visual aids from the National Oceanic & Atmospheric Administration depict images from different climate zones. Appropriate for ages 8 and up.

#### How Stuff Works Temperature and Precipitation Maps

http://maps.howstuffworks.com/united-states-summer-temperatures-map.htm http://maps.howstuffworks.com/united-states-winter-temperatures-map.htm http://maps.howstuffworks.com/united-states-annual-rainfall-map.htm These maps, appropriate for ages 8 and up, are available to print.

#### **Exploring Earth**

## www.classzone.com/books/earth\_science/terc/content/visualizations/es2103/es2103page01.cf m?chapter\_no=21

This interactive climate map, featuring images of different climate zones, is appropriate for ages 8 and up.



## Kids' Zone: State Agricultural Facts

#### http://www.agclassroom.org/kids/ag\_facts.htm

The United States Department of Agriculture "Agriculture in the Classroom" website offers a brief listing of agricultural facts by state.

## **Preparation**

### Six months before the activity

- Prepare and distribute publicity materials for programs based on this activity. If possible, build on the children's knowledge by offering multiple science, technology, engineering, art, and mathematics (STEAM) programs. See the STAR\_Net resources listed at http://community.starnetlibraries.org/resources for ideas.
- For institutions with access to cooking facilities, this activity may be expanded to have the children actually prepare the kid-friendly recipes they identify. Consider partnering with a local chef to help facilitate the event. Ensure that there are plenty of adult helpers and make cooking safety a priority.

### The day before the activity

• Set out a selection of cookbooks, including any regional children's cookbooks that are available.

## <u>Activity</u>

#### **1.** Share ideas and knowledge.

- Introduce yourself and the library. Help the children learn each other's names (if they don't already).
- Frame the activity with the main message: Earth's systems interact to create the *usual* temperature and precipitation or climate that makes our region special.
- Set the stage for an "Iron Chef"-style activity! Explain that, like a complex recipe, many
  factors influence a region's climate, including latitude, elevation, how close it is to large
  bodies of water like oceans or lakes, ocean and air currents, and whether there are
  mountains. The children will work in teams to identify a unique food that grows in your
  region. Like a "secret ingredient" in "Iron Chef," the teams will focus on this one food as
  they each search for a kid-friendly recipe that features it.

While they are related, the terms "climate" and "weather" cannot be used interchangeably to describe a region's environment. Weather can change in a matter of hours or with the seasons, but climate is the typical weather pattern over a long period of time, generally 30 years or more.

The United States consists of several regions that have defined characteristics that are influenced by climate. If you were to travel to a different region, you might expect to pack an entirely different set of clothing than what's in your closet. Be sure to check the weather report before embarking on your excursion, however; it is the nature of weather to not always fit in with what's expected for a region! Regions of the United States can be *generally* classified as one or



more of the following designations:

- Tropical
- Dry
- Mild
- Continental
- Polar
- High elevations

Your community might be particularly proud of certain characteristics of your region that attract tourists, businesses, farmers, and families — all of which depend on climate! For instance, perhaps there is something about the amount of precipitation, air, and temperature that make the area a good place for growing scrumptious regional delicacies. Tap into — and foster — local pride with this activity!

- 2. Plan a meal or banquet to celebrate your region's special dishes and the climate that makes them possible.
  - a. Divide the group into teams of three to four, and assign one of the following categories for each team to plan as they work together to design a full meal (or for larger groups, a banquet with multiple dishes in each category):
    - Drinks
    - Meat, beans, fish or shellfish, eggs, or nuts;
    - Vegetables
    - Fruits
    - Grains
    - Dessert
  - b. Ask the teams to each identify a regional food ingredient a native, edible plant (wild or cultivated); game, fish, or shellfish; or (non-native) crop that is representative of your region and select a recipe that features that ingredient. (Note that domesticated animals should not be considered as regional food ingredients for this activity, since their dependence on regional characteristics, such as climate, is less apparent.)
  - **c.** Distribute a *Recipe Card* to each team and point out the regional information summarized on one side.
  - **d.** Challenge them to find information about where the food grows and in what conditions it thrives in other words, what about the region's latitude, elevation, relationship to oceans, lakes, mountains, etc. is ideal for that food?
  - e. Provide them with 30 minutes to find information about their regional food ingredient and to summarize it, along with a recipe, on their team's *Recipe Card*.
  - **f.** Prepare copies of all of the team's *Recipe Cards* for each child to take home.
- **3.** Conclude. Regroup the children and discuss how their recipes, taken together, make a regional meal. Summarize that the fruits, vegetables, meat, poultry, and fish that we eat ties us to the environmental conditions that produce our favorite foods.



## **Correlation to Standards**

## **National Science Education Standards**

Grades 5-8

Earth and Space Science - Content Standard D Understanding the Structure of the Earth System

• Global patterns of atmospheric movement influence local weather. Oceans have a major effect on climate, because water in the oceans holds a large amount of heat.

## **National Geography Standards**

Grades K-12

NSS-G.K-12.2 PLACES AND REGIONS

- Understand the physical and human characteristics of places.
- Understand that people create regions to interpret Earth's complexity.
- Understand how culture and experience influence people's perceptions of places and regions.

NSS-G.K-12.5 ENVIRONMENT AND SOCIETY

• Understand how physical systems affect human systems.



# RECIPE FOR A REGION

## **Brief Facilitation Outline**

## Share ideas and knowledge.

- Introduce yourself and the library. Help the children learn each other's names (if they don't already).
- Frame the activity with the main message: Earth's systems interact to create the *usual* temperature and precipitation or climate that makes our region special.
- Set the stage for an "Iron Chef"-style activity! Explain that, like a complex recipe, many
  factors influence a region's climate, including latitude, elevation, how close it is to large
  bodies of water like oceans or lakes, ocean and air currents, and whether there are
  mountains. The children will work in teams to identify a unique food that grows in your
  region. Like a "secret ingredient" in "Iron Chef," the teams will focus on this one food as
  they each search for a kid-friendly recipe that features it.
- 1. Plan a meal or banquet to celebrate your region's special dishes and the climate that makes them possible.
  - a. Divide the group into teams of three to four, and assign one of the following categories for each team to plan as they work together to design a full meal (or for larger groups, a banquet with multiple dishes in each category):
    - Drinks
    - Meat, beans, fish or shellfish, eggs, or nuts;
    - Vegetables
    - Fruits
    - Grains
    - Dessert
  - b. Ask the teams to each identify a regional food ingredient a native, edible plant (wild or cultivated); game, fish, or shellfish; or (non-native) crop that is representative of your region and select a recipe that features that ingredient. (Note that domesticated animals should not be considered as regional food ingredients for this activity, since their dependence on regional characteristics, such as climate, is less apparent.)
  - **c.** Distribute a *Recipe Card* to each team and point out the regional information summarized on one side.
  - **d.** Challenge them to find information about where the food grows and in what conditions it thrives in other words, what about the region's latitude, elevation, relationship to oceans, lakes, mountains, etc. is ideal for that food?
  - e. Provide them with 30 minutes to find information about their regional food ingredient and to summarize it, along with a recipe, on their team's *Recipe Card*.
  - **f.** Prepare copies of all of the team's *Recipe Cards* for each child to take home.
- 2. Conclude. Regroup the children and discuss how their recipes, taken together, make a regional meal. Summarize that the fruits, vegetables, meat, poultry, and fish that we eat ties us to the environmental conditions that produce our favorite foods.

# RECIPE FOR A REGION

## **Background Information**

## **Each Region Is Unique**

Changes to distant oceans, air moving freely around our globe, and all living things have an influence on our regional environment, now and in the past and future. We experience Earth's global aspects of water, ice, air, and life on a regional level, as these systems interact to shape our varied climates. Climate, in turn, influences the weather, crops, plants, and animals that make each region a unique place to live.

## **Your Climate Connection**

Your closet is probably full of clothes, shoes, coats, and hats that are appropriate for your local climate. What you choose to wear on any given day is determined by the weather. But, your community might be particularly proud of certain characteristics of your region that attract tourists, businesses, farmers, and families — all of which depend on climate! For instance, perhaps there is something about the amount of precipitation, air, and temperature that make the area a good place for growing scrumptious regional delicacies. Perhaps you brag to distant relatives about the warm winters or plethora of sunny days, or take visitors to local wild areas to observe the unique flora and fauna.

While weather can change in a matter of hours or with the seasons, climate is the long-term average weather of a region. Climate is the average of 30 years or more of weather in a region, i.e. the region's "typical" weather. A region's climate is determined mainly by its latitude and altitude (and influenced by the area's landscape, e.g. nearby mountains, oceans, and lakes). However, it is also shaped by global, rather than regional, influences: ocean currents, patterns of air flow, and cloud formation.

The United States consists of several regions that have defined characteristics that are influenced by climate. If you were to travel to a different region, you might expect to pack an entirely different set of clothing than what's in your closet. Be sure to check the weather report before embarking on your excursion, however; it is the nature of weather to not always fit in with what's expected for a region! Regions of the United States can be *generally* classified as one or more of the following designations:

- Tropical
- Dry
- Mild
- Continental
- Polar
- High elevations

A product of the Science-Technology Activities and Resources for Libraries (*STAR\_Net*) program. Visit our website at www.starnetlibraries.org for more information on our educational programs. Developed by the Lunar and Planetary Institute/Universities Space Research Association August 2014



Climate is the long-term average weather of a region. Different climates are found across the various regions of the United States, and these climates influence the weather, crops, plants, and animals that make each region a unique place to live. Image credit: HowStuffWorks.com.

## **Regions Are Home to Specialized Agriculture**

In addition to the natural niches of life found in a region, farms and gardens are also particular to the quantity and quality of water, ice, air, and life of given location. Crops vary from region to region across the globe due to these parameters, and gardeners select plant types suited to the features of a given location to ensure growth. Even at the top of the food chain, humans are connected to the flora and fauna of our shaped and natural environment. Our diet — which may include fruits, vegetables, meat, poultry, and fish — ties us to the environmental conditions that produce our favorite foods.

Even as our communities grow and evolve, we remain intimately connected to the larger world.



Activity Materials to Print



## Recipe for the Northwest

States: Idaho, Montana, Oregon, Washington, and Wyoming

Latitude: 41°N to 49°N

**Elevation:** The lowest areas are at sea level along the Pacific Ocean and the Snake River in Idaho (710 feet), and the highest areas are Mount Rainier in Washington (14,411 feet) and Gannett Peak in Wyoming (13,804).

Largest nearby bodies of water (like oceans or lakes): Pacific Ocean

Climates: Mild, High Elevation, Dry

## Average Temperatures:

Summer Highs:	80-90°F but highly variable throughout the region; as low at 50°F and as high as 100°F can be found there
Summer Lows:	50-60°F with some areas reaching 30-50°F
Winter Highs:	30-40 °F with some areas reaching 10-30 °F or 40-50°F
Winter Lows:	0-20°F with some areas reaching 20-40°F or -10-0°F
Annual Precipitation: region	64" or more on the coast and certain inland areas, but drier inland with only 8-16" in much of the

**Agriculture:** Idaho produces potatoes and wheat while Montana contributes flaxseed and garbanzo beans. Oregon is the leading producer of blackberries, hazelnuts, loganberries, black raspberries, prunes and plums, and dried herbs. Apples and wine grapes are grown in Washington. Wyoming is known for raising cattle and sheep, but also grows crops such as sugar beets.

## Title:

Unique Regional Ingredient:

This regional ingredient grows here because of the Northwest climate (and sometimes farmers give it the things it needs):

Harvesting season (circle one):	sprin	Ig	summer	fall	winter	
Preferred temperature (circle o	ne):	hot	warm	cool	cold	
Preferred type of precipitation wet	patte	rn (circle or occasional	ne or more) rainfall	: drougl	ht is ok somet	imes

Other Ingredients:

# Recipe for the High Plains

States: Kansas, Minnesota, Nebraska, North Dakota, and South Dakota

Latitude: 37°N to 49° 23'N

Highest and Lowest Elevations: The lowest areas are Lake Superior in Minnesota (601 feet) and Verdigris River (679 feet) in Kansas, and the highest are Harney Peak in South Dakota (7,242 feet) and Panorama Point in Nebraska (5,424 feet).

Largest nearby bodies of water (like oceans or lakes): The only large body of water, Lake Superior, lies along the eastern boundary of Minnesota.

Climates: Dry, Continental

#### Average Temperatures:

Summer Highs:	80-100°F
Summer Lows:	50-70 °F
Winter Highs:	40-50 °F in the southern areas and decreasing northward to as low as 10°F
Winter Lows:	0-20 °F with the southern areas dipping to 20 °F and -10°F in the north

Annual Precipitation: 16-32", but reaching over 40" in southeast Kansas

**Extreme weather events:** The region is prone to tornadoes. Nebraska has frequent winds. Blizzards and wildfires also occur here.

**Agriculture:** Corn, wheat, soybeans, alfalfa, and pumpkins are grown in Kansas. Corn is an important crop in Nebraska (for food and to make a gasoline additive). North Dakota farmers are great producers of flaxseed and canola, and most of the U.S. supply of wheat for pasta (durum) is grown there. Honey is also produced there. Minnesota produces corn and soybeans, and uniquely, wild rice (cultivated paddy rice and traditional Native American hand-harvested wild rice). Corn, grains, and sunflower seeds are grown in South Dakota.

## Title:

Unique Regional Ingredient:

This regional ingredient grows here because of the High Plains climate (and sometimes farmers give it the things it needs):

Harvesting season (circle one):	sprir	ng	summer	fall	winter	
Preferred temperature (circle o	one):	hot	warm	cool	cold	
Preferred type of precipitation wet	patte	rn (circle oi occasional	ne or more) rainfall	: drougl	ht is ok somet	imes

Other Ingredients:

# Recipe for the Midwest/Ohio Valley

States: Illinois, Indiana, Iowa, Kentucky, Michigan, Missouri, Ohio, and Wisconsin

Latitude: 36°N to 47° 3'N

**Elevation:** The lowest areas are the Saint Francis River in Missouri (230 feet) and Mississippi River in Kentucky (257 feet), and the highest are Black Mountain in Kentucky 4,145 and Mount Arvon in Michigan (1,979 feet).

Largest nearby bodies of water (like oceans or lakes): Great Lakes

Climates: Continental

## Average Temperatures:

Summer Highs:	80-90°F with temperatures cooling to 70°F around the Great Lakes and up to 100°F in c
few souther	n regions
Summer Lows:	60-70°F and as low as 50°F in the north
Winter Highs:	30-50 °F with the lowest temperatures in the north
Winter Lows:	0-30 °F

Annual Precipitation: 32-64", but Wisconsin and Michigan tend to be drier.

Agriculture: Corn and soybeans are commonly grown in this region. Illinois also contributes pumpkins. The popcorn variety of corn, tomatoes, and mint are specialties of Indiana. In addition to crops, Iowa is the number one producer of hogs and eggs. Missouri contributes rice. The Great Lakes moderate temperatures by absorbing heat in summer and releasing it in fall; this unique effect permits Michigan to grow apples, grapes, and cherries—fruits that are normally grown further south. Ohio is the number one producer of Swiss cheese in the U.S. and also produces a large crop of pumpkins. Wisconsin produces peas, carrots, and cranberries.

## Title:

Unique Regional Ingredient:

This regional ingredient grows here because of the Midwest/Ohio Valley climate (and sometimes farmers give it the things it needs):

Harvesting season (circle one	e): sprin	9	summer	fall	winter	
Preferred temperature (circ	le one):	hot	warm	cool	cold	
Preferred type of precipitat	ion patter	rn (circle or	ne or more)	:		
We	et	occasional	rainfall	drougl	ht is ok sometin	nes

Other Ingredients:

# Recipe for the Northwest/Mid-Atlantic

**States:** Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia

Latitude: 36° 31'N to 47° 28'N

**Elevation:** The lowest areas are at sea level along the Atlantic Ocean as well as along the Potomac River in the District of Columbia (1 foot). The highest points are Mount Washington in New Hampshire (6,288 feet) and Mount Marcy in New York (1,803 feet).

Largest nearby bodies of water (like oceans or lakes): Great Lakes, Atlantic Ocean

Climates: Continental

## Average Temperatures:

Summer Highs:70-90°FSummer Lows:50-70 °FWinter Highs:30-50 °F, dipping to 10°F in the north and rising to60°F in southern VirginiaWinter Lows:10-30 °F, dipping to -10°F in the north (or even lower in rising to 40°F in southern Virginia

northern Maine!) and

Annual Precipitation: 32-64"

**Agriculture:** Seafood and shellfish are important in this region. Delaware produces soybeans, corn, and apples. Maine is the number one producer of wild blueberries; maple syrup is another major crop. Massachusetts contributes cranberries; and New York, cabbage, corn, and onions. Pennsylvania ranks first in the production of mushrooms in the U.S. Vermont produces maple syrup and apples. Virginia contributes tomatoes and corn, while West Virginia produces apples and peaches.

## Title:

Unique Regional Ingredient:

This regional ingredient grows here because of the Northwest/Mid-Atlantic climate (and sometimes farmers give it the things it needs):

wet	occasional	rainfall	drougl	ht is ok someti	imes
Preferred type of precipitation po	attern (circle or	ne or more)	):		
Preferred temperature (circle one	e): hot	warm	cool	cold	
Harvesting season (circle one): s	spring	summer	fall	winter	

Other Ingredients:

# Recipe for the Southeast

States: Alabama, Florida, Georgia, North Carolina, South Carolina, Tennessee

Latitude: 24° 32' N to 36° 21' N

**Elevation:** The lowest areas are at sea level along the Atlantic Ocean and Gulf of Mexico, as well as the Mississippi River in Tennessee (178 feet). The highest points are Mount Mitchell in North Carolina (6,684 feet) and Clingmans Dome in Tennessee (6,643 feet).

Largest nearby bodies of water (like oceans or lakes): Lake Okeechobee in Florida, Altantic Ocean, Gulf of Mexico

Climates: Mild, Tropical (southern tip of Florida)

### Average Temperatures:

Summer Highs:	90-100°F with northern areas slightly cooler and higher altitude regions dropping to 70-80°F
Summer Lows:	60-80 °F
Winter Highs:	50-70 °F, with cooler areas in the north and rising to 80°F in Florida
Winter Lows:	30-50 °F, dipping to 20°F in the north and rising to 70°F in southern Florida

Annual Precipitation: 32-64" with certain areas receiving 64-96"

**Agriculture:** Peanuts are a major Alabama crop. Georgia also grows peanuts in addition to peaches, pecans, and onions. Florida supplies most of the U.S. production of citrus, especially oranges. Avacados, bok choy, tropical fruits, peanuts, and many other fresh vegetables are also grown in Florida, and in fact, most of the vegetables consumed in the U.S. in the winter are grown there. North Carolina soybeans, corn, sweet potatoes, wheat, peanuts, blueberries, and cucumbers. South Carolina produces leafy greens and peaches; in addition, it is home to the only tea farm in North America. Tennessee contributes corn and soybeans.

## Title:

Unique Regional Ingredient:

This regional ingredient grows here because of the Southeast climate (and sometimes farmers give it the things it needs):

Harvesting season (c	sircie one): spri	ng	summer	tall	winter	
Preferred temperatu	ure (circle one):	hot	warm	cool	cold	
Preferred type of pr	recipitation patte	ern (circle o	one or more	z):		
	wet	occasiona	l rainfall	drou	ight is ok some	etimes

Other Ingredients:

## Recipe for the South

States: Arkansas, Louisiana, Mississippi, Oklahoma, Texas

Latitude: 25° 50' N to 37°N

**Elevation:** The lowest areas are New Orleans (-8 feet) and at sea level along the Gulf of Mexico. The highest points are Guadalupe Peak in Texas (8,749 feet) and Black Mesa in Oklahoma (4,973 feet).

Largest nearby bodies of water (like oceans or lakes): No large lakes, Gulf of Mexico

Climates: Mild, Dry

#### Average Temperatures:

Summer Highs:	90-100°F with certain areas spanning above and below that range
Summer Lows:	60-80 °F
Winter Highs:	50-70 °F, with cooler areas in the north and rising to 80°F in Texas
Winter Lows:	20-40 °F, dipping to 10°F in the northwest and rising over 40°F along the coast

**Annual Precipitation:** 32-64" with coastal areas of Louisiana receiving over 64"; it is drier away from the Gulf—central Texas receives 16-32" and even less in the west

**Agriculture:** Arkansas is the number one producer of rice in the U.S. and also grows soybeans. Sugarcane, rice, sweet potatoes, soybeans, and Tabasco peppers are grown in Louisiana; seafood is also produced there. Soybeans are one of Mississippi's most valuable crops. Oklahoma contributes peanuts, wheat, and pecans. Texas grows onions, melons, citrus, and pecans and nuts.

## Title:

Unique Regional Ingredient:

This regional ingredient grows here because of the Southern climate (and sometimes farmers give it the things it needs):

Harvesting season (circle one):	spri	ng	summer	fall	winter	
Preferred temperature (circle	one):	hot	warm	cool	cold	
Preferred type of precipitation wet	n patte	ern (circle o occasional	ne or more) rainfall	: droug	ht is ok sometir	nes

Other Ingredients:

## Recipe for the Southwest

States: Arizona, California, Colorado, Nevada, New Mexico, Utah

Latitude: 31° 20' N to 42°N

**Elevation:** The lowest point in the region — and in the entire United States — is Death Valley (-282 feet). The Colorado River in Arizona (70 feet) is another low area. The highest points are Mount Whitney in California (14,494 feet) and Mount Elbert in Colorado (14,433 feet).

Largest nearby bodies of water (like oceans or lakes): Pacific Ocean, Great Salt Lake

Climates: Dry, High Elevation, Mild

### Average Temperatures:

Summer Highs:	80-100°F but highly variable throughout the region; as low at 60°F and greater than 110°F can be found there
Summer Lows:	50-70 °F, dipping to 30°F at higher altitudes and rising to 90°F in certain areas
Winter Highs:	20-40 °F, with cooler areas in the highlands and rising to 50°F or even 80°F in the southern and western areas
Winter Lows:	10-20 °F, dipping to 0-20°F at higher altitudes and rising to 30-50°F in the southern and western areas
Winter Lows:	western areas 10-20 °F, dipping to 0-20°F at higher altitudes and rising to 30-50°F in the southern and western

Annual Precipitation: 8-32" with some regions receiving 32-64" and over 96" in certain areas of California

**Agriculture:** The dairy and beef industries are important in the Southwest. Cattle and sheep are Arizona's main agricultural products, but the state also grows melons, lettuce, spinach, broccoli, cauliflower, and lemons. California is the top agricultural state and milk producer in the U.S. It benefits from its unique Mediterranean (mild) climate and year-round growing season. Almonds, artichokes, figs, olives, persimmons, pomegranates, prunes, raisins, and walnuts are all commercially produced only in California; the state is also known for its grapes. Colorado contributes cattle, onions, beans, lettuce, and peaches. New Mexico supplies onions and chili peppers. Barley, oats, and wheat are grown in Utah.

## Title:

Unique Regional Ingredient:

This regional ingredient grows here because of the Southwest climate (and sometimes farmers give it the things it needs):

Harvesting season (circle one):	sprir	ng	summer	fall	winter	
Preferred temperature (circle o	one):	hot	warm	cool	cold	
Preferred type of precipitation wet	e or more): rainfall drought is ok sometimes			times		

Other Ingredients: