



Agriculture in Alaska Lesson

Concept Objective: Local Food, AK Agriculture

Time: 45 minutes – 1 hour

Setting: Indoors

Activities: Where does it grow in Alaska?, “Who Grew My Soup”

Materials Needed:

- Alaska Maps
- Laminated Animal/AK product pictures
- Alaska Agriculture handouts:
 - A Look at AK Ag
 - Alaska Agriculture quiz
 - Alaska Facts
- “Who Grew My Soup” Book written by Tom Darbyshire
- Various local products to sample

Procedure:

Explain the Activity

Did you know that there are some people who believe we cannot grow anything in Alaska? When you say Alaska, they think: Ice, snow, mountains and polar bears - not animals and vegetables! We’re going to discuss what Agriculture is and how it happens in the great state of Alaska.

What is Agriculture?

It is the science, and business of cultivating soil, producing crops, and raising livestock; it is also known as farming

Have you been touched by agriculture today?

Ask if they ate breakfast? If so, then you’ve been touched by agriculture. Ask them if they are wearing clothes? When they say yes, say you’ve been touched by agriculture. Are you wearing shoes? Yes, then you are touched by agriculture. Agriculture touches our lives every day, but often we don’t even think about how important it is.

Alaska State Standards*

Kindergarten

Reading: [K]1.1.1, [K]1.1.3, [K]1.1.4, [K]1.3.1, [K]1.2.1, [K]1.2.2, [K]1.4.2, [K]1.5.1, [K]1.6.1, [K]1.7.1, [K]1.7.2, [K]1.9.1, [K]1.10.1

Geography: A1, B1

Grade 1:

History & Nature of Science, SG4

Scientists = Louis Pasteur and George Washington Carver

Reading: [1]1.2.1, [1]1.2.3, [1]1.2.4, [1]1.4.2, [1]1.5.1, [1]1.6.1, [1]1.7.2, [1]1.8.1, [1]1.9.1, [1]1.10.1

Geography: A1, B1

Grade 2:

Reading: [2]1.5.1, [2]1.7.2, [2]1.8.1, [2]1.9.1, [2]1.10.1

Geography: A1, B1

Grade 3:

Science: SA3.1(L), SC2.1

Reading: [3]1.3.1, [3]1.2.4, [3]1.7.2, [3]1.8.1, [3]1.9.1

Geography: A1, B1

Grade 4:

Science: SA3.1(L), SC1.1, SC2.2

Reading: [4]2.5.2, [4]2.5.3, [4]2.10.1

Geography: A1, B1, E2(L)

Grade 5:

Science: SA3.1

Reading: [5]2.5.1, [5]2.10.1, [5]

Geography: A1, B1, D1, E2(L)

Grade 6:

Reading: [6]2.5.1, [6]2.9.2, [6]2.10.1

Geography: A1, B1, B7, C3, D1, E2(L)

AK History: PPE 6 [DOK2]

Grade 7:

Reading: [7]3.4.1, [7]3.8.2

Geography: A1, B1, B7, C3, D1, E2(L)

AK History: PPE 6 [DOK2]

Employability: B2 (agriculture)

Grade 8:

Reading: [8]3.4.1, [8]3.8.2

Geography: A1, B1, B7, C3, D1, E2(L)

AK History: PPE 6 [DOK2]

Employability: B2 (agriculture)

Note: Current Alaska Performance Standards/Grade Level Expectations start at Grade 3, and encompass reading, writing, math, science, and Alaska history only. Grade Level Expectations for Kindergarten through Grade 2 are from the older version of the GLEs.

Do you know we have agriculture in Alaska?

Alaska Agriculture is amazing and quite different from agriculture in many other places. Yes, Alaska has some extreme temperatures, but because it also gets more hours of daylight in the summer, some crops actually **grow better** in Alaska.

Alaska is FAR away from the other states, so it takes a long time for food to get to us. Buying food that is Alaska grown doesn't just mean fresher foods; it can also mean food grown with fewer pesticides (chemicals that kill insects), herbicides (chemicals that kill plants). Because there are fewer diseases and crop pests in Alaska, many farmers use fewer chemicals or no chemicals at all! That means healthy plants and animals for us!

Let's find out what grows where in Alaska.....

1. Hang up the map of Alaska -
2. Start with beef cattle
3. Discuss a fact or two related to that agricultural product in relation to Alaska
4. Choose a volunteer student for *that* category
5. Point to each location on the map of Alaska where cattle is raised and let the volunteer student put the picture of cattle on each of those places.
6. Move on to the next category

WHERE DOES IT GROW IN ALASKA?

1. Beef Cattle

Cattle – ask what kind of products do we get from cattle? Let them give a few examples. We have farmers in Alaska that raise cattle! Many people don't know that!!

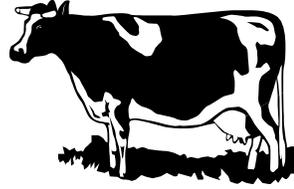
Location:

Mat-Su Valley
Tanana Valley (including Delta Junction and Fairbanks)
Kenai Peninsula
Kodiak
Aleutian Chain



2. Dairy

How many people like milk? What kinds of products contain milk? Let them answer. Products made from milk are called dairy products including cheese, yogurt, sour cream, whipped cream, etc. Alaska has dairy producers in two areas, again have a volunteer put a dairy cow on the areas on the map that produce dairy.



Location:

Mat-Su Valley
Tanana Valley
Kenai Peninsula

3. Goats

What do you think you can get from a goat? Not just meat, milk and dairy products. Did you know they make soap and lotion from goat milk?? They even make clothes from goat hair. Cashmere is made from goat hair!!



Location:

Mat-Su Valley
Tanana Valley
Kenai Peninsula

4. Bison

Bison are raised on only in only a handful of states. Alaska has wild Bison herds and domestic (farmed) Bison herds. Bison are raised for meat and hides; the majority of American bison in the world are raised for human consumption. Bison meat is lower in fat and cholesterol, yet higher in protein than beef,

Domestic Bison Locations:

Delta Junction
Kodiak
Mat-Su Valley



5. Reindeer

Reindeer are domestic cousins to caribou. There are about 18,000 reindeer in Alaska, and about 12,000 of those are on the Seward Peninsula. Reindeer are also found on Nunivak Island, St. Lawrence Island, the Pribilof Islands and some of the Aleutian Islands. There is a tremendous demand for reindeer meat and great potential for the industry, but processing issues, wild caribou, and logistics create challenges.

Location:

Aleutian Islands
Seward Peninsula
Southwestern Alaska
Tanana Valley
Mat-Su Valley

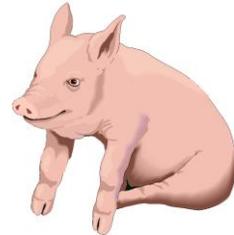


6. Pork

Pork is a meat that comes from a pig. Pork is eaten in many parts of the world. It is one of the most consumed meats worldwide. Pigs have been raised and slaughtered since 5000BC for food consumption. Pork can be processed into many different things. Some of these processes can extend the shelf life of the meat. Some of the methods for this may be curing, smoking, or combining these two to preserve the meat. A list of products made from pigs may include bacon, soap, shampoo, cosmetics, toothpaste, gelatin, dough improver, bone china and paint, paint brushes, sandpaper, collagen, and beer, wine, and fruit juices.

Location:

Mat-Su Valley
Tanana Valley
Kenai Peninsula



7. Sheep

In addition to lamb meat and wool, there are many other products you can get from sheep. Sheep milk is used in the making of Feta, Roquefort, and ricotta cheese. Lanolin, oil extracted during wool cleaning, is a common ingredient in many hand lotions. Sheep skins are turned into chamois cloths.

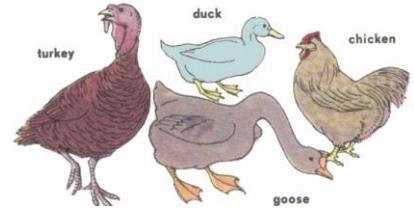
Location:

Mat-Su Valley
Tanana Valley
Southeast
Aleutian Chain
Kenai Peninsula



8. Poultry

Poultry includes chickens, turkeys, ducks, and geese. While there are no large commercial poultry farms in Alaska since 2011 after the last poultry farm closed in Wasilla, many small farms raise poultry for both meat and eggs providing locally grown products to local stores.



Location:

Tanana Valley
Mat-Su Valley
Kenai Peninsula
Kodiak
Juneau
Southeast Alaska

We have talked about livestock (farm animals), now let's talk about plants:

Vegetables and Crops

9. Greenhouse/High Tunnel Crops (Tomatoes/ Cucumbers/Lettuce, Squash, etc)

Location:

Matanuska- Susitna Valleys
Tanana Valley
Kenai Peninsula
Kodiak
Southeast Alaska

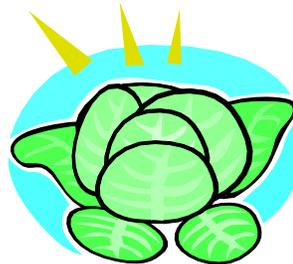


10. Cabbage

Alaska is famous for its giant vegetables. With the many hours of extra sunlight in the summer, Alaska vegetables grow to enormous sizes.

Cabbage growing location:

Matanuska- Susitna Valleys
Tanana Valley
Kenai Peninsula



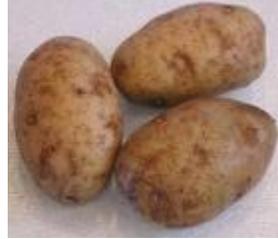
11. **Potatoes**

Who likes potatoes? What is your favorite potato product? French fries? Chips? Mashed potatoes???

Potatoes grow incredibly well in Alaska. It is one of the biggest crops grown in Alaska.

Location:

Matanuska- Susitna Valleys
Tanana Valley
Kenai Peninsula



12. **Hay**

Hay is grass, legumes or other herbaceous plants that have been cut, dried, and stored for use as animal fodder, particularly for grazing livestock such as cattle, horses, goats, and sheep. Hay is also fed to pets such as rabbits and guinea pigs. Pigs may be fed hay, but they do not digest it as efficiently as more fully herbivorous animals. What kinds of animals eat hay?



Location:

Matanuska- Susitna Valleys
Tanana Valley
Kenai Peninsula
Kodiak

13. **Barley**

Barley (*Hordeum vulgare* L.), a member of the grass family, is a major cereal grain. Important uses include use as animal fodder, as a source of fermentable material for beer and certain distilled beverages, and as a component of various health foods. It is used in soups and stews, and in barley bread of various cultures. Barley grains are commonly made into malt in a traditional and ancient method of preparation. It can also be used for heating homes.



Location:

Tanana Valley
Mat-Su Valley

14. Peonies

Peonies are a new crop to Alaska over the last 10 years. Apparently nowhere else but Alaska are farmers growing vibrant crops of peonies that bloom at the end of the summer. That's "late" compared to the rest of the world, where peonies -- a cool-season crop -- typically flower in the spring and early summer.



Location:

Tanana Valley (including Delta Junction)

Kenai Peninsula

Matanuska Valley

After the last picture is placed on the map, stand back and look at it with the kids. Say, "Wow!" There is a lot that can be grown and raised in Alaska!! Now if anyone asks you if there is just snow, mountains or polar bears....you have a lot to tell them!

Finish by reading the book "Who Grew My Soup" by Tom Darbyshire

WHO GREW MY SOUP STORY TELLING TIPS:

Before you start reading this book - Pull out a can of Campbell's Vegetable Soup and ask the children to name what is inside the can.

I invite my audiences (children and adults alike) to become part of the storytelling experience, and as I read -- I request that they:

1) Mimic Phineas Quinn's facial expressions – the illustrations are priceless.

2) Repeat key phrases like, "Who grew my soup?"

3) Finish the last word of some sentences.

Tom Darbyshire's rhymes are fun to read! The audience is so involved that when I purposely leave off the last word they finish my sentence with the appropriate rhyme. Example: "Phin, meet Farmer Perez, his thumbs are quite green, the tomatoes he grows are the best ever...." and the children add....."seen!"

4. Give the children several words to LISTEN for in the story. Here are the ones I chose for "Who Grew My Soup" -- Yuck, Gunk, Boogers, Icky...and that list I from the second page! Of course, boogers will be a favorite.

