



# Alaska

## Agriculture in the Classroom

Fairbanks Soil and Water Conservation District  
Melissa Sikes, Natural Resource Education Specialist



# Fairbanks Soil and Water Conservation District

The Mission of the FSWCD is to serve its cooperators, private landowners, and all citizens of the district by promoting wise development and conservation of natural resources.

Conservation Districts were created throughout the US by the states, shortly after the Dust Bowl era of the 1930's as the locally led effort to curb soil erosion on private lands.



# What FSWCD Does

- Soil Testing and Soil Quality Programs
- Watershed restoration, stream cleanup, bank stabilization, and water quality testing.
- Agriculture assistance, conservation planning
- Invasive Plant education and management plans
- Forest management assistance, annual tree and shrub sale.
- Natural Resource education programs, workshops, and assistance.



# Ag in the Classroom

AG in the Classroom is a national program to assist teachers in making students aware of the role of agriculture in our lives. Funded in part by the U.S. Department of Agriculture and each respective state, AG in the Classroom programs serves students in grades K-12. Each program presents factual information about farming.



# Why Agricultural Literacy?

Whether or not the term agriculture is familiar to children, they are familiar with farming and the plants and animals raised on the farm.

Using agriculture to teach science and other subjects both provides a highly familiar and visible means of explaining life sciences to even the youngest students, and debunks myths about agriculture being caught in a 19th century time warp where Old MacDonald is plowing behind a horse.

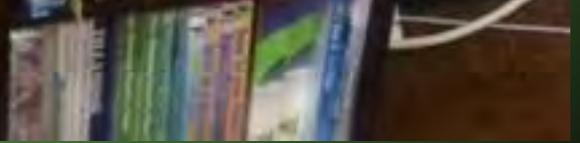
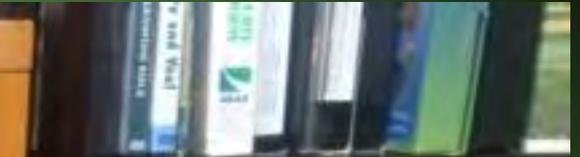
# What does AKAITC Offer?

- Curriculum materials and educational resources. Available at our office but can be mailed upon request
- Website: [www.agclassroom.org/ak](http://www.agclassroom.org/ak) - with lessons and resources.
- 4-day workshop teacher and educator in Interior area in June of 2015.
- Possible workshops in different areas of the state including the Mat-Su area, Anchorage, or Kenai.





42 IN THE CLASSROOM BOOKS





Promoting sustainable development and the wise use of natural resources



## Agriculture in the Classroom



Agriculture in Alaska 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.

FSWCD is the coordinator for the Alaska Ag in the Classroom program (AK AITC). Alaska Ag in the Classroom is a statewide program. Alaska Ag in the

Classroom is a 501c3 educational program begun by the Alaska Farm Bureau to help Alaska's students understand that farms are the source of their food and flowers, as well as fabrics and fuels.

### What Is Ag in the Classroom

The mission of Agriculture in the Classroom is to "increase agricultural literacy through K-12 education." An agriculturally literate person is defined as "one who understands and can communicate the source and value of agriculture as it affects quality of life." Agriculture in the Classroom (AITC) programs seek to improve student achievement by applying authentic, agricultural-based content as the context to teach core curriculum concepts in science, social studies, language arts and nutrition. By encouraging teachers to embed



### Education

- Educators Page
- AG in the Classroom
  - Alaska Ag in the Classroom Lessons
- Project Learning Tree
- Project WET
- Schoolyard Habitats
- After School Programs

# Also

- Presence at Tanana Valley Fair and Alaska State Fair and other outreach events.
- Marketing AITC to all of our partners, contacts, web page, facebook, etc.
- Coordination of AITC AK AG Day presentations in Fairbanks and idea assistance to those around the state (farm bureaus, school districts, etc.)





 FAIRBANKS SOIL & WATER  
CONSERVATION DISTRICT

PROMOTING THE  
WISER USE OF OUR  
NATURAL RESOURCES

Informational display area featuring several blue panels with text and images, and stacks of brochures on a table covered with a light green patterned cloth.



DO NOT BLOCK  
PATHWAY



**Normal Teaching**  
 Implementing Lessons

Alaska Ag in the Classroom is a program designed to help promote your child's education.

It can be used to enhance a reading or writing unit, or to provide a hands-on experience for your child. Learn about the program, and how it can help your child.

**Raising Agricultural Literacy**



**What is Ag in the Classroom?**

The mission of Agriculture in the Classroom is to increase agricultural literacy through a variety of programs.

We provide a variety of programs to help you and your child learn about agriculture and the importance of food.

Ag in the Classroom is a program that provides a variety of resources to help you and your child learn about agriculture and the importance of food.



**Educator Trainings**

**Materials**

**Lesson Plans**



**Alaska Ag Day!**  
 The 1st Tuesday in May

Alaska Ag Day is a special day to celebrate agriculture in Alaska. It is held on the 1st Tuesday in May.




Alaska GROWN

Alaska GROWN is a program that provides a variety of resources to help you and your child learn about agriculture and the importance of food.

[www.agclassroom.org/ak](http://www.agclassroom.org/ak)





# Also

- Development of statewide contacts to assist with dissemination of AITC lessons throughout the year and particularly during Alaska Ag Day, as well as promote AITC to their local and state partners and governments.
- Support and assistance to Alaska Farm Bureau and local chapters, 4-H, and FFA in their education efforts.
- Post Alaska AITC activities and some curriculum on the national AITC Website.



# Summer Educator Workshop

June 2-5, 2015

- 9-hr (8am – 5 pm) workshop and field trips for 4 days
- Field trips will include a trip to the Delta area farms.
- 1-2 credits (extra work required for 2 credits)
- \$190
- At University of Alaska Fairbanks (UAF)

This course introduces educators to many aspects of Alaska agriculture, including:

- Conservation, production and marketing.
- The many resources available through the Alaska Ag in the Classroom program.
- Interdisciplinary methods, including STEM, to teach principles of agriculture, strategies to promote students' understanding of soil science, the water cycle, nutrition, gardening/gathering, agro-economics, animal science, innovations, and careers.



Ag in the Classroom Workshop  
June 3-6, 2014

The class offers supplemental, differentiated, challenging curriculum and instruction for regular education, resource and gifted students. Guest presenters will cover a wide variety of topics. Field trips will provide hands-on opportunities.

Using lessons developed for Alaska and Nation Ag in the Classroom programs, the instructors will demonstrate how agriculture provides a hook to catch student's interests.



# Visit to the UAF Large Animal Farm



**Tough Foods**  
**TAKE A LOT OF GUTS**



**BEAR:** Fast flows for simple foods



**MUSKOX:** Slow flows and big chambers for complex foods

Chemical Disruption; H<sup>+</sup> = Acid secretion; Microbes = Fermentation

UAF ALASKA  
 2007 LARS Summer School

Qiviut



MONITORED CARIBOU & REINDEER HERDS



UAF ALASKA

Presenter: A woman in a blue button-down shirt standing at the front of the room, gesturing towards the screen.

Participant: A woman in a black jacket standing on the right side of the room.

Participant: A person wearing a camouflage baseball cap and a dark jacket, seen from behind, sitting at a table.

Participant: A person wearing a red jacket, seen from behind, sitting at a table.

Table: A white folding table with a laptop and other items on it, positioned in front of the screen.



ROBERT G. WHITE LARGE ANIMAL RESEARCH STATION

The MUSKOX  
(*Ovibos moschatus*)





# Visit to a Local School Garden



# Visit to the Farmer's Market



## Farmer's Market Scavenger Hunt

You need to go and find the vendors who fulfill the item on this list. Be sure to visit as many vendors as possible. Be sure to take some time to talk with them, they are very knowledgeable and happy to share.

1. Find 2 vendors who sell native perennials (write the names of their businesses). Find out how they propagate their plants.

Vendors \_\_\_\_\_

2. Find 2 vendors that sell dried herbs. Write down 2 things you can do with the herbs.

Vendors \_\_\_\_\_

3. Which of the herb vendors will be selling native trees soon? Which trees are they selling?

Vendors \_\_\_\_\_

4. Find 2 vendors with products using Alaska Trees.

Vendor \_\_\_\_\_

5. Find a vendor selling Birch Sap products.

Vendor \_\_\_\_\_

6. Find 2 vendors that sell local grown honey and honey products. (Don't ask for recipes!) Ask how they take care of the bees.

Vendors \_\_\_\_\_

7. Find 2 vendors that sell jewelry with Alaska fossils in them.

Vendors \_\_\_\_\_

8. Find 2 artists who have images/artwork featuring local farms.

Vendors \_\_\_\_\_

9. What are the days/hours that the Farmer's Market is open?

10. Find 2 vendors with insect related items.

Vendors \_\_\_\_\_

# Visit to Chena Hot Springs



# Farming History



# Alternative Energy





# Hydroponic Gardening





# Peony Farm



# Visit with a local farmer



# Tour of Risse's Greenhouse: a commercial production greenhouse



# Visit to a local animal farm









### Potato Lesson

Concept Objective: Plants

Time: 40-45 minutes

Setting: Indoors

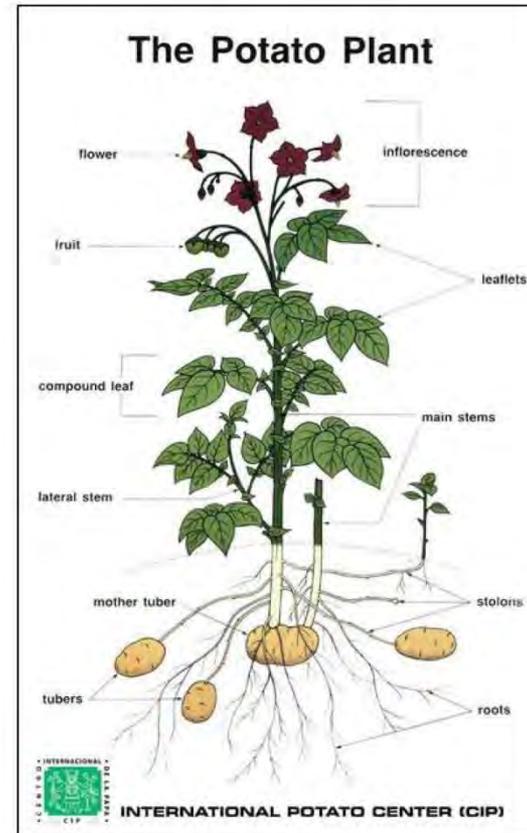
Activities: Potatoes 101, Stalking Starch,  
Potato Games and Crafts

Materials Needed:

- Large potatoes
- Iodine
- Laminated Potato Facts
- Cloves
- Brads
- Markers, sharpies
- Yarn
- Toothpicks
- Chenille Stems
- Music player
- Plastic knife
- Paper
- Craft paints

### Procedure:

1. Begin by looking at potatoes 101 and parts diagram, discuss what eyes are and what a tuber is.
2. Discuss how potatoes are best planted.
3. Pass out the fun facts to the students. Have each one read out loud. Discuss.
4. Then talk about what starch is and do the Stalking Starch Activity.
5. Finish with the crafts and games.





## Gardening Program

# Making Carrot Seed Tape



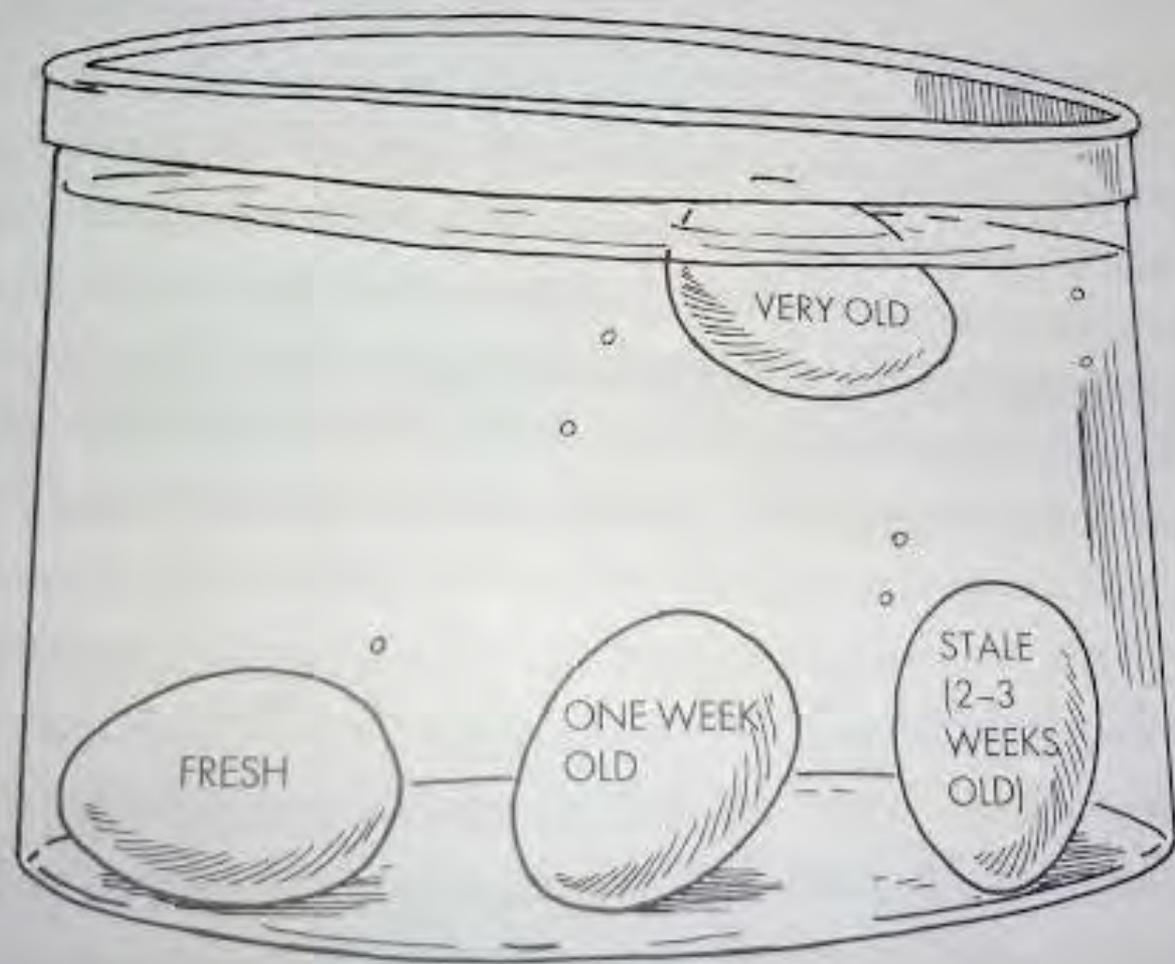


# Sheep Sculptures





## Float Test



An easy way to determine an egg's age is by placing it in water. Older eggs have larger air cells and will therefore float.

Taste Testing Local Eggs







## Agriculture in Alaska Lesson

**Concept Objective:** Local Food, AK Agriculture

**Time:** 40 minutes

**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)

# AKAITC Future Plans

- Continued development of curriculum materials and supplies
- Attend national and regional AITC conferences
- Seek further financial assistance and partners through grants, cooperative agreements with UAF, UUA, National AITC, Coop. Ext., FFA, 4-H, Farm to School, Division of Agriculture, Local Farm Bureau Chapters, private, state and federal partners.



[www.agclassroom.org/ak](http://www.agclassroom.org/ak)

# How to Contact Us

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