Oregon Agriculture in the Classroom Foundation
What is Agriculture?

A great topic for teaching...
Agriculture is ... Food
Agriculture is ... Farming & Ranching

- 38,600 farms in Oregon
- 98% of Oregon farms are owned or operated by families
- 1,100 farms are Century Farms or Ranches
Agriculture is ... Fiber

- You’re wearing it!
Agriculture is ... Fishing

- Harvesting from oceans
- Crab, shrimp, groundfish
Agriculture is ... Flowers

- Nursery business is a top agricultural commodity
- $775 million in Oregon nursery and greenhouse sales
Agriculture is ... Forestry
Mission:
To help students grow in their knowledge of agriculture, the environment, and natural resources for the benefit of Oregonians today and in the future.
For the last five years, AITC has reached 100,000 students per year across Oregon.

Provide cross-curricular, hands-on materials/lessons to K-12 teachers – public, private, and home schools in all 36 counties.
BRING YOUR CLASSROOM TO LIFE.
We can help you expand your students’ knowledge of agriculture, the environment and natural resources.
AITC’s Free Loan Library

- AITC has kits, lessons, books, DVDs, hands-on resources for K-12
- FREE to Oregon teachers
Lesson to Grow

Apples to Oregon & Growing Bracelets

Description:
The tall tale is a fundamental element of American folk literature. In this literary genre, unbelievable elements are related as if they were true and factual. Tall tales are often humorous or witty and told so the narrator is part of the story.

The 2009 AITC Literacy Project book, Apples to Oregon, written by Oregon author Deborah Hopkinson, is a delightful tall tale which contains the best elements of a good “whopper.”

After reading the book, students will make “growing” bracelets and learn about the basic elements plants really need to grow and thrive. A kit, including the book and free bracelet materials for students is available to Oregon educators online at AITC’s Free Loan Library.

Directions:
Part I: Reading Apples to Oregon
Before you begin, tell the students you are going to read them a “tall tale” based on a real person. See attached sheet on Henderson Luelling. This story is an excellent example of this literary genre. The pictures are engaging and help tell the story.

When you finish the book, comment on the effort that went into making sure those fruit trees made it across the Oregon Trail. This is a good lead into the bracelet activity. Example: “Mr. Luelling and his family did a lot to make sure their plants survived. We are going to make a bracelet that will teach us what plants need to grow and thrive.”

Part II: Making the Growing Bracelet
1) Each student receives a pipe cleaner and six beads (one blue, brown, clear, yellow, green, and red).
2) Ask students to choose the sunshine bead (yellow).
3) Have them place the bead on their pipe cleaner, and give them facts about the sun. See sidebar for bead facts.
4) Continue with the next two beads – brown (soil), blue (water), and clear (air). These four beads represent the essential elements plants need to live.
5) Next, have them put the green bead on for the plant. Finally, have them add the red bead, which represents the care and nurturing that goes into tending plants. Connect the care shown for the trees in Apples to Oregon to the red bead.

Adults may need to help them close their bracelets, but don’t twist them too tightly.

7) After the bracelets are made, ask them again to review what each bead represents.

Also Check Out Online at AITC:
Books: Apples of Your Eye; Apples: A True Book
Literacy Kit: Oh Soy Can You Seed?: All About Flowering Plants
DVD: Apple Farming for Kids
Download Activities: Apple Faces; Apple Songs; Growing an Apple Fungus; Apples: A Class Act (instructional unit)

http://AITC.oregonstate.edu, Oregon Agriculture in the Classroom Foundation, 541-737-1318
Teacher Resource Newsletter

- E-news monthly
- Annual Newsletter with calendar
- 2,200 teachers on confidential list
Grown in Oregon

Oregon’s Agricultural Regions and Commodities

Oregon’s Seven Growing Regions

Region 1: Oregon Coast
Average Temperatures: Jan. 43°F, July 68°F; Average Precipitation 37".
This region is dominated by the Pacific Ocean which provides Dungeness crab, shrimp, salmon, halibut, ling cod, mussels and clams. On land, coastal dairy farms are famous for their cheeses. Timber is harvested along the entire coast range. Specialty crops include cranberries and lily bulbs.

Region 2: Willamette Valley
Average Temperatures: Jan. 38°F, July 63°F; Average Precipitation 43".
This extremely diverse agricultural area has over 170 different crops including nursery plants, grass and legume seed, grains, fruit and nut trees (pears, cherries, hazelnuts), berries, wine grapes, corn, vegetables, Christmas trees, dairy and beef cattle, chicken and eggs.

Region 3: Southwest Oregon
Average Temperatures: Jan. 39°F, July 71°F; Average Precipitation 28.5".
The Rogue, Applegate and Umpqua Valleys are where most crops are grown in this region. The foothills around the valleys are devoted to hay and livestock, and forestland is in the surrounding higher elevations. The primary valley crops include wine grapes, pears and other tree fruits.

Region 4: High Desert
Average Temperatures: Jan. 32°F, July 70°F; Average Precipitation 11.9".
Located in the shadow of the Cascade Mountain Range, livestock and hay are mainstays of this desert region. Crops depend on irrigation and have a short growing season with warm days and cold nights. The region is also suitable for seed crops including: garlic, onion and carrot seed.

Region 5: Columbia Basin
Average Temperatures: Jan. 33°F, July 71°F; Average Precipitation 12.1".
Nearly three fourths of the state's wheat is grown in this region. Irrigation from the Columbia River allows farmers to grow potatoes, alfalfa, wheat, watermelons, onions, field corn and raise cattle. Other area crops include beans, peas, wine grapes, apples and blueberries.

Region 6: Northeast Oregon
Average Temperatures: Jan. 32°F, July 67°F; Average Precipitation 14.2".
This high altitude region is known primarily for cattle, hay, potatoes, wheat, mint, grass seed and forage. The area has sugarbeets, cherries, vineyards and many specialty crops grown for seed (canola, sunflowers, peas, carrots and spinach). Timber is also harvested in this area.

Region 7: Southeast Oregon
Average Temperatures: Jan. 26°F, July 66°F; Average Precipitation 12.4"
The livestock industry dominates southeast Oregon. Cattle graze here on thousands of acres of private and federal rangeland. Because of low rainfall in this region, most haying fields and pastures are irrigated. Major crops include onions, potatoes, sugarbeets, wheat, corn, hay and dairy farms.

Top Countries for Oregon Ag Exports

- #1 - Japan
- #2 - China
- #3 - South Korea
- #4 - Philippines
- #5 - Canada
- #6 - Taiwan
- #7 - Thailand
- #8 - Indonesia
- #9 - Egypt
- #10 - Iraq
- #11 - Hong Kong
- #12 - Yemen

Economics & Agriculture

Oregon is one of the nation's top agricultural states. Oregon Ag and food products are the second largest exports in terms of value, and the first in terms of volume.  
- 25% - 30% of Oregon Ag products leave the state
- 35% - 40% of Oregon Ag products leave the country
- Oregon exports $2.75 billion in agricultural products

One in every eight Oregon jobs is ag related!

Oregon’s Top 10 Commodities

2. Hay  7. Potatoes
3. Cattle and Calves  8. Blueberries
5. Wheat  10. Christmas trees  

For the most current statistics visit Oregon Department of Agriculture www.oregonag.gov/ODA.

Geography Lessons & Resources

- Place matters. It helps ground us, gives us a sense of home, history and often pride. Oregon, with its amazing diversity of landscape and culture, is a rich place to live and grow up.

- AITC offers Oregon-focused lessons, links, and resources on geography, geology and soils. Download materials from the Teachers section of AITC’s website.

- This worksheet orient’s students to map reading basics so they can chart their way around a map and read the special story each map has to tell.

- Using the Grow in Oregon Map, students answer questions about where they live and what grows in their part of Oregon. The lesson also looks at the effects of temperature and precipitation on local communities and agriculture.

- Students first learn regional facts that make Oregon a special place and the symbols that represent the state. Students then test their knowledge with a trivia pursuit-style game.

- Students read and interpret maps to learn about the physical and social features of the states. They then create individual county maps that show what they learned.

- This map was designed for educational purposes. It shows the leading and unique commodities throughout the state. The map’s region were determined based on temperature and rainfall. While Oregon has numerous micro-climates, this map is a generalization of the different growing regions.

- Oregon Agriculture in the Classroom Foundation Oregon State University, 303 Strand Ag Hall Corvallis, OR 97331  

  Phone: 541-737-8629  http://aitc.oregonstate.edu

- AITC’s Online Map Room

  Take a Trip to AITC’s Online Map Room  

  From precipitation to population maps, AITC’s online Map Room has dozens of maps on Oregon’s physical and social features. All maps are available to download and use in classrooms for free.

- Oregon in the Classroom Foundation

  Special thanks are extended to the Oregon Beef Council and the OHS Foundation for generously providing funds to produce this map.

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My Oregon Plate - Nutrition

Grown in Oregon

What grows in your county?

What is your favorite Oregon grown fruit?

What is your favorite Oregon grown vegetable?

Legend

Apples
Oranges
Blackberries
Blueberries
Lettuce
Spinach
Bean
Corn
Cow
Chicken
Eggs
Cherry
Grapes
Tomato
Mushroom
Potato
Pumpkin
Peanut
Shrimp
Watermelon
Orchard Fruit

Oregon Agriculture in the Classroom Foundation
http://oitc.oregonstate.edu
My Oregon Grown Plate

Fruits
Focus on fruits
Fresh Oregon fruit is sweet and delicious. Try berries, cherries, pears, peaches and watermelon. They can be eaten fresh, canned, frozen or dried.

Veggies
Vary your veggies
In Oregon it’s easy to mix your veggies and eat a rainbow of colors. Try locally grown potatoes, onions, green beans, tomatoes, broccoli and squash.

Grains
Grains
Make half your grains whole
In Oregon we grow many types of grains including wheat, oats, barley and corn. One bushel of wheat makes about 73 loaves of bread. Oregon farmers produce soft white wheat.

Dairy
Dairy
Get your calcium-rich foods
Milk, yogurt and cheese are dairy products. Low-fat cheese sticks and yogurt are an easy way to get three servings a day. Soy drinks are another option. Milk is the official beverage of Oregon.

Protein
Go lean with protein
In addition to beef, chicken and eggs, Oregon has a bounty of seafood. Try shrimp, crab, salmon and other types of fish. Local farmers grow non-meat protein such as hazelnuts, dry beans, lentils and peas.

Choose MyPlate.gov
Oregon Agriculture in the Classroom Foundation
http://aitc.oregonstate.edu

Eat a variety of foods!
Exercise every day!
Get Oregonized

- AITC published book on Oregon’s history, people, natural resources, regions of the state, and agriculture

- Meets state history and regions standards for grades 3 - 5

- Newly updated
Catching Salmon

Salmon was the most important food of the Chinook people. Millions of salmon swam up the Columbia River each year. The Chinook men caught them with spears, nets and long-handled dip nets. They often built platforms out over rapids and waterfalls to fish from.

One of the most important fishing places was Celilo Falls. It was near where The Dalles is located now. During salmon runs, hundreds of Indians gathered to fish there. The men and boys took turns fishing from the wooden platforms. It was hard work.

The women and girls worked hard, too. They cut up the fish and hung them on racks to dry and smoke. This dried or smoked salmon would be their most important food. It was also used for trading.

During the salmon runs there was much celebrating. The people danced and sang. They had a big feast. They told old stories and shared the latest news. They gave thanks to the Creator and the salmon for giving them food.

Chinook Language

The Chinook Indians of the lower Columbia River were great traders. They traveled long distances in their big canoes to trade. The most important goods were dried salmon and slaves. The slaves were Indians from other tribes who had been captured. The Chinook had big trade fairs where Indians from all around came to do business.

A special language was used to communicate while trading. We call this Chinook Jargon. It had words from many languages. Different clans and tribes could use it to speak with each other.
Activity Page 4

Chinook Jargon

Here are some words from the Chinook Jargon. You may recognize some of them. The Jargon changed as it was used. After the white people came, some of their words were added.

- yaka = him or her
- tenas = baby, little
- tenas klootchman = girl
- tenas man = boy
- klootchman = female
- muma yaka mama, chitish = go with mother
- nes, yahal = name
- scalpo = hat
- klootchman coat = dress
- titilops = shoes
- dly skin = leather
- movrids = deer
- mosolk = elk
- chalchak = eagle
- chocks = water
- tenas chuch = creek
- beebee = laugh
- chikecwawa = joke
- klatawa pe naitich = visit
- naambah = see
- klatawa = went
- pe = and
- mille = you
- mifire = wearing
- pil = red
- kawekwek = yellow
- spool = blue
- ilt = one
- most = two
- klonje = three
- lokit = four
- kwimmi = five
- tughum = six
- strumox = seven
- wronen = eight
- krewest = nine
- tahsuch = ten
- mone tahsuch = twenty
- tahsuch tahsuch = hundred

Here is a sentence written in Chinook Jargon. Write it in English. Use the lines below.

Tenas klootchman miltile pil klootchman coat pe dly skin titilops
klatawa pe naitich yaka chitish.

Can you write your own phrase in Chinook Jargon? Try it. Have a classmate try to read it.
Get Oregonized

Winter at Fort Clatsop

Lewis and Clark had reached their destination. The Pacific Ocean was in sight! What a thrill for the expedition! The hardships and struggles of the journey now seemed worth the effort. In November 1805, the men prepared a winter camp. Cabins were built to protect them from the heavy rains and winds.

Their first camp on the north side of the Columbia River proved unsuitable. Game there was scarce. Elk were more plentiful on the south shore and the party chose to build the winter camp there. While the daily cold rains fell, they built a 55-foot-square fort in the land of the Clatsop Indians. The camp was named Fort Clatsop in honor of the friendly Indian tribe. The men moved into Fort Clatsop by Christmas Day, 1805.

During the rainy winter at Fort Clatsop, everyone was busy. The men spent a lot of time hunting elk, not only for food, but also for the hides. Their clothing and blankets were torn and rotted. Elk skins were made into new clothes, blankets and 338 pair of moccasins. Guns had to be repaired. Dried roots and berries were stored in empty sacks that once held flour and cornmeal. All of these activities helped prepare the expedition for their return to St. Louis.

The winter temperatures at Fort Clatsop were not as cold as those at Fort Mandan, but they were much wetter. Some of the men suffered with severe colds because of the wet climate.

The exploring party had run out of salt, so a salt making works was set up a few miles down the beach at present day Seaside. Ocean water was kept boiling day and night. The water would evaporate and leave the salt. About 20 gallons of salt were made in this manner. The salt was used to season, cure and preserve the game they had killed. The pile of rocks upon which the fire was built is called a salt cairn, and it can still be seen today at Seaside.

Lewis and Clark thought the expedition should stay at Fort Clatsop until after the first of April. The vast stretches of land between the Cascade Mountains and the Rockies would be cold at night and firewood would be scarce. It would not be safe to cross the Rocky Mountain passes before the early summer snow melt. But the food was in short supply and the weather was wet and cold at Fort Clatsop. By the middle of March, 1806, Lewis and Clark decided to leave their winter camp near the Pacific Ocean and head east to St. Louis.
Most people walked beside their wagons. Walking was easier than driving or riding in the jolting wagon. Men and women took turns driving the oxen.

Midday the train stopped for about an hour so people could rest and have something to eat. The journey then continued until about 6 p.m. at night when a guide led the train into a circle. The wagons were unhitched. Then the tongue of each wagon was chained to the rear wheels of the wagon in front of it. This circle of wagons acted as a corral for the livestock and was good protection for the pioneers inside.

When the wagon train had stopped for the night, there was work to be done. The children looked for fuel for the campfire, which was either wood or buffalo chips. Men began to set up camp and care for the livestock. Women started the evening meal, which was usually bacon and bread fried in heavy iron pans. On some days, hunters were lucky and there was meat to eat. A few pioneers brought dried fruit to help prevent illness that could be caused by lack of fresh fruit.

After the evening meal, the children could play, make up games, climb the rocks and explore. Evenings were a social time for the camp. There was much talking, laughing and maybe even dancing to a fiddler's tune.

At about 9 p.m. it was time for everyone to settle down for the night. Men were expected to have a turn on guard duty about every third night. They worked two-hour shifts beginning at 8 p.m. and ending at 4 a.m. with the wake-up signal.

The experiences of those pioneers that crossed the Oregon Trail were as different as the people themselves. For some, the journey was a time of adventure and discovery. Hugh Cosgrove, who moved his family west in 1847, remembered it as one of the most pleasant experiences of his life. For him it was one long picnic. But others began the journey without a clear idea of how long the trail would be. They did not know what hardships they would face. It was a long and often difficult trail. Many lost family members and loved ones. Their memories were filled with sadness, pain and suffering.
Get Oregonized

Linus Pauling was born in Portland but moved to Condon and other towns in Oregon before settling in back in Portland. His father died when Linus was only 10 years old. He worked hard at school. He also worked after school and in the summers at a grocery store and machine shop. Oregon Agricultural College (now known as Oregon State University) accepted his application when he was only 16 years old. He took every class they had in mathematics and physics. To stay in school he had to earn money so he mopped floors, chopped wood, cut meat and taught several college classes. He graduated in 1922 with a degree in Chemical Engineering.

Linus went on to several other universities and studied the chemical bonds that hold molecules in different shapes. This helped many scientists begin to understand how molecules and cells were designed. This included diseases that started in the human body and how science could use the knowledge to help people get well. The discoveries made by Linus Pauling are still helping people today. He received his first Nobel Prize for this research in 1954.

During the Second World War Linus Pauling was asked to work on weapons for the United States Military. He did this for his country but became more and more concerned about Nuclear Warfare and its effects on everything living. Many scientists felt the same way and worked with him to ban nuclear testing above the surface of the earth. For this work he received the second Nobel Prize in 1962. Linus Pauling was a great Oregonian for many reasons.
Get Oregonized

September for games, trading and dancing. Today, on the Sunday before the Round-Up starts, Indians from the Confederated Tribes put up about 250 tepees between the stadium and the Umatilla River. They live here for the week of the Round-Up. They participate in the Round-Up every afternoon and in the Happy Canyon show each night.

Every year hundreds of people from around Pendleton give their time and talent to help put on the Round-Up. It is their way of helping others share in our past and to appreciate it. “Let ‘er buck...”

Bronc Riding (left)
Bull-dogging event (middle)
Indian relay race (bottom)
AITC Calendar Contest

- K-6 Contest
- In 2015-16 school year, over 1,700 students from 30 counties participated
Artist - Matson F., Grade 3, Jacksonville Elementary, Mrs. Schubert, Jacksonville
Artist - Leslie I., Grade 1, Jackson Elementary, Mrs. Muro, Medford
AITC 2017 Literacy Project

- Annual Project - 10th Year
- Read from March – May
- 757 Volunteers read to over 21,000 Students in 2016
Other Opportunities

- Plant-a-Seed Field Trips
- Teacher Trainings
Ag Fest – Activity

Make Your Own Living Necklace

Supplies:
- seed jars
- plant growth
- small vase

Make it, grow it, eat it!
Why should kids understand agriculture?

- Educate future citizens and decision makers
- Know source of food and fiber
- Better nutrition and healthier future
- Stronger appreciation of their natural world
oregonaitc.org
How would you use this in your classroom?

What changes or adaptations would you make?

Any other ideas or feedback?