

# Fruit

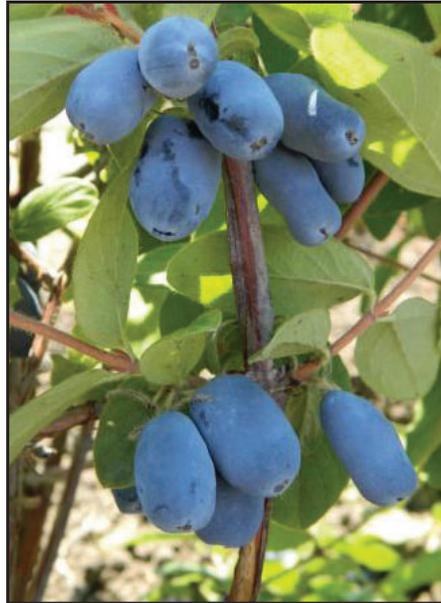
## Alaska Agriculture in the Classroom for Pre-K (Ages 3-5)

### Lesson Goal

The goal of this lesson is to teach Pre-K students how to recognize plants, to care for them, and to understand that plants are useful for personal health and agricultural goals.

### Student Objective

The student will be able to understand why plants are raised and how to care for them, participate in a physical activity, participate in a group activity, recognize the images of fruit, participate in making



food products, and to make healthy food choices.

### Activities

- **Story Time:** Agriculture in Alaska and Children’s Books
- **Exploring:** Fruit Wonders, Apple Parts, Fruit Harvest, and Seed Salvage
- **Creating:** Blueberry Stamp Basket, and Fruit and Vegetable Colors,
- **On the Go:** Berry Blitz
- **MyPlate:** Making Healthy Food Choices, Fruit Jam, Teddy Bear Toast, and Fruit Rollups

### Vocabulary

Fruit, berry, seed, skin, pit, stem, core, flesh, dispersal, bush, and tree.

## Rubric

Alaska Early Learning Guideline Domains	Student Target	Facilitating Activities
1 – Physical Well-Being, Health, and Motor Development	The student participates in a physical activity, involving coordination and movement.  The student recognizes and participates in making and eating nutritious foods.	<ul style="list-style-type: none"> <li>• Berry Blitz</li> <li>• Fruit Rollups, Teddy Bear Toast, and Fruit Jam</li> </ul>
2 – Social and Emotional Development	The student participates in a group activity, displays cooperative teamwork to accomplish a group goal, and recognizes individual contributions.	<ul style="list-style-type: none"> <li>• Berry Blitz</li> </ul>
3 – Approaches to Learning	The student sustains attention on a multi-task project with specified requirements.	<ul style="list-style-type: none"> <li>• Blueberry Stamp Baskets and Apple Parts</li> </ul>
4 – Cognition and General Knowledge	The student communicates comprehension by recognizing the plants and is able to show understanding of how to care for them.  The student is able to choose healthy foods.	<ul style="list-style-type: none"> <li>• Fruit Wonders, Fruit &amp; Veggie Colors</li> <li>• Making Healthy Food Choices, Fruit Jam, Teddy Bear Toast, and Fruit Rollups</li> </ul>
5 – Communication, Language, and Literacy	The student listens with attentiveness and curiosity.  The student mimics sounds and/or actions.	<ul style="list-style-type: none"> <li>• Agriculture in Alaska and Children’s Books</li> <li>• Seed Salvage</li> </ul>

# Story Time!

## Agriculture in Alaska Alaska Berries

Alaska Berries is a farm in Soldotna where we grow many different kinds of berries. We started growing them because we love to eat berries! Most people have tasted strawberries, raspberries and blueberries. We grow them and we also grow some other berries that not everyone knows about. We also grow gooseberries, currants, Saskatoons and Haskap berries.

Every berry you eat started out as a flower on the plant. As the plant grows, bees visit each flower and help them turn into berries. You can tell what kind of berry will come from the plant by looking at the shape of the plant, its leaves, and the type of flowers. Each berry has a different shape, color, and flavor. The plants look different too. Strawberries and blueberries grow close to the ground. Raspberries grow on tall, thin canes. Haskaps and Saskatoons grow on bushy plants that can get as tall as trees.

Our gooseberries start out looking like green grapes and turn red when they ripen. Other kinds turn purple or stay green. Saskatoons look a little like small blueberries. Currants grow in a cluster on a sprig and can be different colors, too. We have red and black currants. Haskaps look kind of like a



stretched out blueberry.

If you've eaten berries, you know they are usually sweet and taste delicious. Rabbits, bears, porcupines and birds like berries as much as we do, so we have a fence to keep out the animals and put big nets over the fields to keep the birds off the plants. That way, we can harvest our berries and share them with other people.

We love eating fresh berries, but we can only pick and eat them fresh for a short time in the summer. We also freeze and dry berries and make them into other products to eat during the times we can't have fresh berries. We like to eat berry syrup on our waffles and ice cream, berry jam on our toast and we put frozen berries in our oatmeal for breakfast.

*Laurie and Brian Olson  
Alaska Berries in Soldotna*



## Children's Books

### Materials

- Children's book Up, Up, Up! It's Apple Picking Time by Jody Fickes Shapiro

- Variety of fresh fruit, uncut

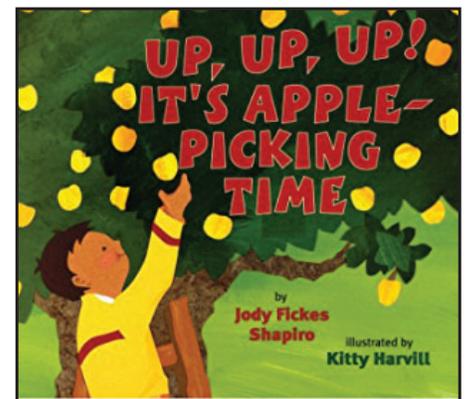
- Bowls

1. Read Up, Up, Up! It's Apple Picking Time. As you read, discuss the following questions with the students: Where do apples grow? What colors can apples be? What are apples used for?

2. After reading the book and answering the questions, tell the students they will be learning more about apples and their senses.

3. Ask students to identify their five senses—see, smell, feel, hear, taste. Demonstrate how to use each sense, by explaining it and pointing to your body part that uses that sense.

4. Set out the fruit in bowls. Demonstrate how to use each sense to examine the fruit. Have students take turns examining the fruit with their senses. Ask the students to tell you what they discover.



# Exploring

## Fruit Wonders

### Materials

- Images of fruit trees and shrubs
- Real examples of fruit-based foods

1. A fruit is the sweet and fleshy product of a flowering tree or plant that contains seeds and can be eaten as food. Fruits can be eaten in their freshest form throughout the year, because they can be grown in greenhouses and all over the world. They can be shipped to us, even during the winter.

2. Fresh fruit year is available year-round in grocery stores because the climate or weather conditions are good in many places all over the world and we can get fruit shipped to us from almost anywhere.

3. Fruits are low in calories, high in nutrition and fiber, and taste delicious. Fruits are also added to other foods, such as ice cream, yogurt, juice and cookies for flavor.

4. Fruits are an excellent source of vitamins, such as Vitamin C, which helps the body heal wounds, lowers the risk of infection, keeps the body from bruising and builds the tissue, holds muscles and bones together, helps the body absorb the iron found in foods, and strengthens the immune system. Some fruits contain citric acid, which acts as a natural preservative.

5. Fruits are grown on trees,



shrubs, or vines and produce fruit for years. The fruit of a plant contains the seeds. When animals eat the fruit, they may eat the seed which is later deposited with the animal's scat or waste. The scat provides nutrients for the seed to grow into a plant. This process helps disperse seeds and plants to new areas.

6. For example, birds might eat berries in one location, then fly to another location and deposit their scat with the berry seeds in the new location.

**Review:** Why should we eat fruit? What are a few ways in which fruits can be eaten? Where do fruits grow? Who grows fruits? How do seeds get dispersed?

## Apple Parts

### Materials

- Apple Parts pages
- Scissors
- Glue
- Paper Plates

1. Prior to class, print and cut out one set of the Apple Parts Cards to use as labels

throughout this demonstration. Explain to the students that they are going to learn about the different parts of an apple.

2. Cut an apple with an apple slicer. Peel the skin off of one slice. Ask students what it is. Explain that the skin covers and protects the apple's flesh and seeds. Label the skin by placing it next to the "skin" card.

3. Show the students the peeled apple slice's flesh. Explain that the flesh is the sweet part of the apple that you can eat. Place the flesh by the "flesh" card.

4. Pull the stem off of the apple core. Ask students what it is. Explain that the stem is what attaches the apple to the apple tree, bringing water and nutrients to the apple. Place the stem by the "stem" card.

5. Pull some seeds out of the core. Ask the students what they are. Explain that the seeds can be used to grow new apple trees. It takes a long time to grow a new apple tree from seeds. Place the seeds by the "seed" card.

6. Slice the bottom off of the core. Show the students the calyx. Explain that apples develop from flowers. The calyx is what is left of the apple blossom. Place the calyx with the "calyx" card.



# Fruit Harvest

## Materials

- Variety of fresh berries
- Large plastic cups
- Fresh grapes
- Examples of dried foods
- Cookie sheet
- Parchment paper
- Clean kitchen towel
- Direct sunlight

1. Berries can be grown on a farm or picked in the wild. In Alaska, berries grow everywhere. Ask students if they've been berry picking. What kind of tools do you need to pick berries? How do you store the berries? Do you eat them raw or cooked?

2. Berries are an example of a food that has several products made from it. Ask students: What are some foods that are made from berries? Raisins, grape juice, vinegar, jam and jellies.

3. How do you think raisins are made from grapes? By drying the grapes. Raisins have a longer shelf life and are readily available year-round. Grapes may be more expensive during the off season and go bad after a few days.

4. Discuss that the taste and texture of each is different. Fruit is harvested in the summer or fall, when fully ripe. Ask the students if they can name some other dried foods they like to eat.

5. Hand out a plastic cup to each student and let them choose berries to dry. Have students wash their berries



and spread them onto a cookie sheet lined with parchment paper and place them in a window that gets direct sunlight. Place a towel over the berries to protect them from pests.

6. Have students turn the berries over twice a day to keep them from sticking. When the berries are shriveled and almost dry, they are raisins. Factors such as the amount of direct sunlight and the room humidity will affect how long the process will take. Store them in an airtight container.

**Option:** For areas with high humidity, dry berries in a dehydrator or use an oven. Set your oven for 160°F and leave the berries to dry for up to 7 hours. Check the progress each hour and turn them frequently to avoid sticking.



# Seed Salvage

## Materials

- Blank paper
- Fruit seeds (any fruit—Peppers or Tomatoes work well)
- Images of the fruit's life cycle
- Large plastic cups with drainage holes poked in the bottom
- Waterproof tray
- Potting soil
- Light source
- Water in a spray bottle that mists well

1. Hand out a blank piece of paper to all of the students. Demonstrate how to fold it into fourths.

2. Discuss a fruit's life cycle while showing images of the fruit you are using, from seed to tree, blossom, and fruit.

3. Dissect your fruit, showing students where the seeds are found. Place the seeds on a plate. Dissect enough fruit for 2 seeds per student.

4. Demonstrate how to plant 2 salvaged fruit seeds in a plastic cup filled with soil.

5. Ask students to place their cup in the waterproof tray. Demonstrate how to mist the soil with a spray bottle, soaking the top layer thoroughly.

6. Place the tray in a window or under growing lights. Observe the seed growth over the next few weeks. They may even want to start a plant journal.

# Creating

## Blueberry Stamp Basket

### Materials

- A variety of small potatoes such as fingerlings
- Blue acrylic paint
- Paper plates
- Watercolor or heavy paper
- Popsickle Sticks
- Glue

1. Before starting the lesson, cut the ends of the potatoes off, exposing the inside of the potato as a flat surface.

2. Hand out pencils and demonstrate how to poke holes and draw into the cut surface of the potato.

3. Hand out paper plates with a small amount of blue acrylic paint on it. Demonstrate how to stamp blueberries by setting the cut potato surface into the acrylic paint and then onto the watercolor paper. Instruct them to make many blueberry stamps with their potatoes.

4. Hand out a popsickle stick to each student and demonstrate how to draw lines on them to resemble wood grain.

5. Demonstrate how to glue the popsickle stick onto the paper over the bottom area of the stamped blueberries to create a basket full of berries.



## Fruit and Vegetable Colors

### Materials

- Variety of Fruits and Vegetables such as:

Beets (shred)

Carrots (shred)

Grapes

Red cabbage (shred)

Strawberries

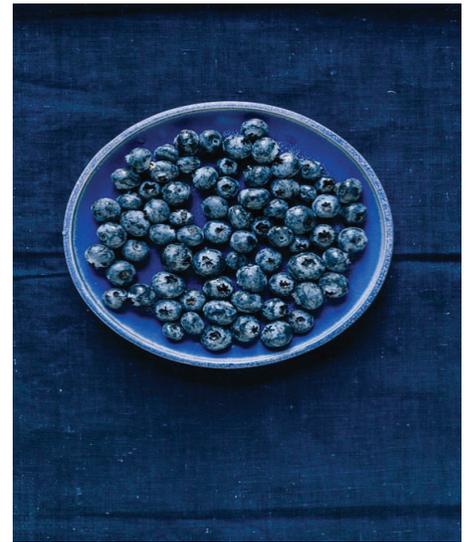
Blueberries

- Plastic Cups
- Spoons
- Warm water
- Blender
- Paint brushes
- Paper
- Scraps of white fabric

1. Explain that a fruit is the part of a plant that contains the seeds. Fruit and vegetables come in various colors. Some of those colors help animals who eat them find them easily.

2. Explain that sometimes fruit skins are used to color or dye things like fabric.

3. Blend the fruits with warm water in the blender for a few minutes.



4. Give the students samples of the fruits and vegetables and instruct them to put them in cups sorted by type.
5. Add some warm water to the cup and stir vigorously
6. Use the resulting “dye” to create pictures on the paper or fabric.
7. Talk about how colors in plants sometime will leave marks and sometimes they don't. Discuss plant dyes and how artists us them in various ways.



# On the Go!

## Berry Blitz

### Materials

- Alaska Berry Pictures
- Crayons
- Scissors
- Berry buckets

1. Give each student an Alaska Berry Picture Page and ask them to cut them out.

2. Ask the students to scatter or hide the berries around the room or place them on the floor, within a specified area.

3. Students will 'hunt' for the berries and collect what they find in their 'berry bucket.' Customize the game according to the skills your student's are working on. The options are endless!

**Shapes Option:** Have students draw a shape out of a jar and then collect specific shapes. Have student collect a combination of shapes.

**Numbers Option:** Have students find numbers of particular kinds of berries. 2 strawberries, 3 blueberries for example.

**Words Option:** Have students draw a word out of a jar and then find the same word. Have students find sight words, rhyming words, or words that start with the same letter. Have students find words that create a sentence.



# MyPlate

## Making Healthy Food Choices

### Materials

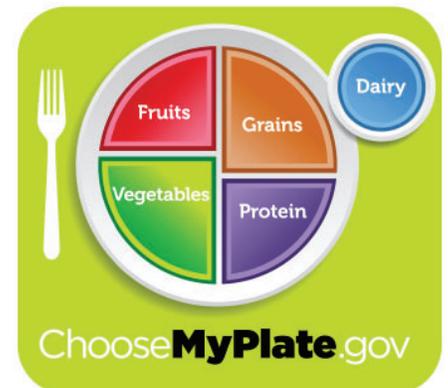
- Laminated MyPlate Place Mats
- Variety of food choices from each group, multiples of the same types of food, plus some that don't fit into the suggested groups.

1. Hand out laminated MyPlate place mats. Let students choose five foods from a pile of laminated food choices. Limit them to five choices.

2. Have the students place their foods into the food groups on their MyPlate place mat.

3. Discuss their choices and ask them to trade in some of them for others in order to fill their plate—ending up with a choice for each food group area—a full plate.

4. Discuss how making food choices that fill in each food group area for meals will help them grow healthy.



## Fruit Jam

### Materials

- Fresh fruit
- Sugar, honey, or another sweetener
- Lemon juice
- Strainer
- Wooden spoon
- Small plates
- Glass microwave-safe bowl
- Microwave

**1.** Wash and strain the fruit. In a large mixing bowl, add the fruit and sweetener (to preference), and mix well, crushing the berries. Let sit for 1/2 hour, until fruit looks syrupy.

**2.** Place 2-3 cups of the mixture in a large, glass, microwave-safe bowl. Microwave on HIGH for 5 minutes, stir well, and then microwave on HIGH for another 5 minutes. Remove with pot holders and mix well, mashing the berries further.

**3.** Continue microwaving in 2 to 3 minute intervals, stirring between each interval. Continue cooking until the liquid concentrates to a sticky syrup that coats the back of a spoon and falls off in heavy drips. When done, it should be a little loose—it will set more firmly as it cools. Total cooking time is around 15 minutes.

**4.** Carefully transfer the jam to a storage container. Let it cool, uncovered and then place in a covered container and store in the refrigerator.

**5.** Serve cool with crackers or small pieces of toast or bread.



## Teddy Bear Toast

### Materials

- 2 slices sandwich bread
- 4 tablespoons peanut butter
- 1 banana, sliced
- 6 blueberries

**1.** Place the bread slices in a toaster and toast until golden brown.

**2.** Spread 2 tablespoons of peanut butter onto each piece of toast and shape into 1 large circle for the teddy bear face and 2 smaller circles for the teddy bear ears.

**3.** Place a banana slice in the center of each small circle to make ears, and one banana slice in the center of the large circle to make a mouth.

**4.** Place 2 blueberries above the center banana slice to make eyes and 1 blueberry on top of the center banana slice.

## Fruit Rollups

### Materials

- Fresh or frozen fruit
- Sugar, honey, or other sweetener
- Lemon juice
- Wooden spoon
- Parchment paper
- Cookie sheet
- Kitchen scissors
- Food processor or blender
- Oven

**1.** Blend 2-3 cups of fruit in a food processor or blender until smooth. Mix in 2-3 Tbsp sweetener and 2 Tbsp lemon juice.

**2.** Pour into a pan lined with plastic wrap or parchment paper then spread out 1/8 to 1/4 inch thick.

**3.** Dehydrate in oven at 140 to 170 degrees F (or as low as oven will go) for 4 to 6 hours, or until the middle is not longer tacky.

**4.** Allow to cool, then remove from sheet. With scissors, trim cut into 1 inch wide strips. Wrap with strips of parchment or tissue paper, then use tape or string to seal.



# References

The activities in this lesson have been, in part, adapted from the following references:

## Rubric

- Alaska Early Learning Guidelines—<https://www.alaskaelg.org/goals-by-domain>

## Agriculture in Alaska

- Alaska Berries, Laurie and Brian Olson, Alaska Berries in Kenai - images of some fruit provided by Brian and Laurie

## Children’s Books

- Up, Up, Up! It’s Apple Picking Time by Jody Fickes Shapiro
- A is for Apples, National Agriculture in the Classroom—<https://agclassroom.org/matrix/lesson/374/>

## Fruit Wonders

- Freshest Fruits, National Agriculture in the Classroom—<https://agclassroom.org/matrix/lesson/322/>

## Fruit & Veggie Colors

- Written by Mel Sikes

## Fruit Harvest

- Fruits of Our Labor, National Agriculture in the Classroom—<https://agclassroom.org/matrix/lesson/50/>

## Seed Salvage

- Apples in Alaska, Alaska Agriculture in the Classroom—<http://www.fairbankssoilwater.org/user-files/pdfs/>

[ApplesinAlaska.pdf](#)

## Blueberry Stamp Basket

- Written by Sharon Lockwood <http://littlepageturners.blogspot.com/2011/08/potato-blueberry-stamps.html>

## Apple Parts

- A is for Apples, National Agriculture in the Classroom—<https://agclassroom.org/matrix/lesson/374/>

## Berry Blitz

- Creative Little Explorers—<https://www.creativelittleexplorers.com/picking-apples-game/>

## Making Healthy Food Choices

- Grow It, Try It, Like It, U.S. Department of Agriculture—<https://www.fns.usda.gov/tn/grow-it>
- MyPlate Place Mat, U.S. Department of Agriculture—<https://www.myplate.gov/resources/graphics/myplate-graphics>

## Fruit Jam

- Simply Recipes—[https://www.simplyrecipes.com/recipes/microwave\\_strawberry\\_jam/](https://www.simplyrecipes.com/recipes/microwave_strawberry_jam/)

## Your Resources:

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## Teddy Bear Toast

Written by Sharon Lockwood

## Fruit Rollups

- Live Eat Learn—<https://www.liveeatlearn.com/3-ingredient-fruit-roll-ups/>

## Images:

- Some images sourced from: <https://unsplash.com/>

# Resources

- MyPlate Poster and Place mat—<https://www.myplate.gov/resources/print-materials>
- MyPlate Tools, Graphics, Print Materials, and Videos—<https://www.myplate.gov/resources>
- Alaska Agriculture in the Classroom Lessons— <http://www.fairbankssoilwater.org/akagintheclassroomlessons.htm>
- National Agriculture in the Classroom Lessons—<https://www.agclassroom.org/matrix>

Images of Fruit Trees and Shrubs



Crab Apple



Haskap



Blueberries



Grapes



Peaches



Raspberries

# Images of Berries



Apple Parts

**stem**

**stem**

**leaf**

**leaf**

**flesh**

**flesh**

**seeds**

**seeds**

**skin**

**skin**

**calyx**

**calyx**

# MyPlate Place Mat



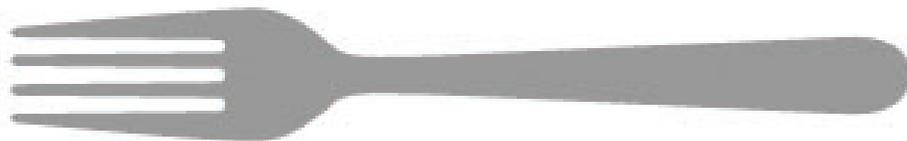
Dairy

Grains

Protein

Fruits

Vegetables



# What's **MyPlate** All About?

