

# Arizona Grown Specialty Crop Lesson Plan

## “A is for Apple”



**LEVEL:** Grade K-3

**SUBJECTS:** Math, Literature  
(Reading/Writing), Art, Music

**AZ ACADEMIC STANDARDS:** 1M-R3, 2M-R1, 2M-R3, 5M-R3, W-R1, 1AM-R1

### **MATERIALS**

Large apple cut out of butcher paper, Mystery Box, 1 apple per student, dry erase markers or chalk, yarn or string, a paper graph, apples for weighing, bathroom scale, apple record sheet, cups, apple worksheet, bar graph, apple slicer or knife, small paper plates and napkins, butcher paper, crockpot, apple pieces, water, cinnamon, pre-sliced apples, lemon juice and bowl, two plates, book (Johnny Appleseed), birthday supplies, Johnny Appleseed time line, optional applesauce cake, foam neat trays or plates, undiluted liquid red, green, yellow tempera paints, apples cut in halves, white construction paper, magazines, scissors, glue, tagboard or cardboard, watercolors, paintbrushes, construction paper, copy attached songs and poem-one for each student.

Red Apple

The Apple Tree

Johnny Appleseed

Copy Apple Pickin Cards on card Stock, laminate cards if possible

### **VOCABULARY**

orchard, Johnny Appleseed, tally marks, estimating, Gala, Granny Smith, Red and Golden

Delicious, Fuji, agriculture, colonists, hitch-hiked, seasons, pruning, Food Guide Pyramid.

### **RELATED LESSONS**

What to do with *Malus domestica*, Cultivated Apples?  
Apple: Kinds to Products  
Apple: Seed to Tree  
Apple: Bare to Pick

### **SUPPORTING INFORMATION**

Since the beginnings of agriculture, people have been important agents in seed dispersal. The colonists carried many seeds of familiar Old World plants with them to America and many other seeds “hitch-hiked” in hay and on the bottom of boots mixed with dirt and mud. There are thousands of varieties of apples growing all over the world. Russia leads in apple production, with the United States, France, West Germany, and China following. In Arizona, apple growers raise 55 million pounds of apples each year. Gala, Granny Smith, Red and Golden Delicious and Fuji apples are grown in Arizona. The orchard is a busy place all year long. In the spring, new trees are planted and old ones are fertilized and sprayed for disease. Hundreds of honeybees help to pollinate the apple blossoms. During summer and fall, ripe apples are picked and sent to cold storage, which slows down the ripening process. Winter is pruning time. Pruning helps the

### **BRIEF DESCRIPTION**

Through hands-on interdisciplinary activities students will learn about apples. They will explore apples using a multitude of learning styles and techniques.

### **OBJECTIVES**

The students will:  
→ Use their previous knowledge to explore apples and their uses.  
→ Count using tally marks, discriminate, estimate, weigh and graph apples.  
→ Use their sense of taste to explore apples.  
→ Observe and evaluate apples when they are placed in lemon juice.

### **ESTIMATED TEACHING TIME**

1 to 2 weeks  
Each lesson lasts 15-20 minutes

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trees bear fruit for 40 to 60 years. Apples taste good and are good for us. They are an important part of the food guide pyramid. They are packed with potassium, vitamins C and A. The apple is a healthy year-round treat whether it is baked, boiled, stewed, fried or eaten right off the tree.

### GETTING STARTED

A note needs to be sent home asking each child to bring an apple to school. Teacher will need extra apples on hand for students who don't bring any apples.

#### Materials needed:

**Large apple cut out of butcher paper** to record the student's answers.

**Mystery Box-** an empty tackle box works well for this and the size is appropriate for the activity.

### PROCEDURES

To introduce your apple unit use a mystery box. Put an apple in a box and write three clues about it. (**Example: 1. It is a Fruit. 2. It grows on a tree. 3. It is red.**) The clues may vary depending on the age group you are teaching. Have the children guess what's in the box from the clues you give them. Once they have guessed it go right into the "Talents Unlimited" communication/forecasting activity. This activity is to help them open up and brainstorm about apples and their uses.

**Talents Unlimited:** You ask the children the following question: "**What are the many varied and unusual ways to use an apple?**" Write down all their answers inside the cutout apple. Anything goes- no right or wrong answers. (**Example answers:** make an apple pie, to juggle with, food, applesauce, count, make pattern with) When they have exhausted all of their ideas

ask the question: **Do you know what we are going to learn about?** (Apples of course) Now is the time to find out what the students already know about apples.

Ask them the following questions to get an idea of your student's prior knowledge of the subject.

**What is an Apple?** (A fruit, food) **What do you know about apples?** (It has a core and seeds, It has skin and juice, they come in different colors) **Where do apples come from?** (Trees, orchards, stores) **What do we use apples for?** (food, games)

### MATH

#### Activity #1

Have each student get their apples out of their backpacks and bring them to the math center. Take turns going to the board and making a tally mark for the color of apple they have brought to school. Count the tally marks under each color and decide which color of apple is most popular and the least popular.

#### Activity #2

- Have each child estimate how much yarn it will take to go around his/her apple.
- Have the child cut that amount of yarn.
- Now measure with the yarn around the apple.
- Have the children put their yarn in the correct place on the class graph.

#### Activity #3

Have the students estimate how much they think all the apples weigh when put together in a box or basket. Have them write down their estimate on their record sheet. Next, actually weigh apples in a box or basket on a bathroom scale. Write down the actual weight and then see who was the closest. Throughout the day at the math center, students can weigh on a food scale

their individual apples and record their findings. This is a great activity to reinforce how to use different types of scales and work with numbers.

#### Activity #4

Have the children estimate how many seeds are in their apples. Write down the number on a piece of scratch paper at their seats, so they don't forget.

Next, cut the apples in half horizontally. Have each child compare the patterns inside their apples. Did some of them find a star? Now have the children carefully remove the seeds from inside their apples. Put the seeds from each apple into a paper cup with their name on it. Graph the results.

#### Activity #5

Next cut the apples into small pieces and let everyone taste the different kinds of apples that were brought in. Make sure that you have enough of every kind of apple so that everyone can taste them. Show them the ones that we grow here in Arizona. After tasting, have the children practice making tally marks and put one under the kind they like the best. Practice counting with tally marks to see which was the class favorite.

#### Activity #6

With the extra pieces of apples put them in a Crockpot and cook the apples with water until you have applesauce. Add a touch of cinnamon. What a delicious math lesson! After the children have had a chance to sample their applesauce, graph their reactions.

### SCIENCE

#### Activity #1

Dip some apple slices in lemon juice and leave some plain. Place on a plate. Ask the students what they think will happen to each plate of

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apples. Observe what happens to the color of the apple slices on each plate after a little time. Discuss with students how the lemon juice coats the apple slices with citric acid; consequently, the air does not turn these slices brown.

## LITERATURE

### Activity #1

Read the story Johnny Appleseed by Madeline Olsen. It is an easy reader book and children enjoy and easily understand it. Celebrate Johnny Appleseed's birthday, September 26, 1774, in your classroom. Enjoy applesauce cake or other apple desserts and snacks in his memory. An assessment for comprehension of the story is to have each student complete the "Time line" about Johnny Appleseed. This can be done with a partner, group or individually depending on the age group. (Time Line attached)

## ART

### Activity #1

- Pour paint into trays or plates.
- Students dip apple (flat surface down) into paint tray.
- Press onto construction paper.
- Repeat to make a pleasing design.

### Activity #2

- Students cut out pictures of apples, apple recipes, and apple products from magazines.
- Arrange on the tagboard.
- Glue on the tagboard.
- Coat with shellac or, if the piece is flat, laminate.

### Activity #3

- Paint shades of watercolors all over one sheet of construction paper.
- Let it dry overnight.
- Cut or tear apple shapes from the water-colored paper.

- Glue the shapes to a sheet of construction paper. (A contrasting color is especially effective)

## MUSIC

### Activity #1

**Materials needed:**  
**Copy the two attached songs and poem, one for each student.**

- Red Apple
- The Apple Tree
- Johnny Appleseed

Teach the students the songs and poem during the unit of study. Practice them at calendar and transition times for successful retention. Have students illustrate them. Then they can take them home to share with their families. This is also a great piece for their portfolios to show writing skills.

## WRITING

### Activity #1

**Materials needed:**  
**Copy Apple Pickin Cards on Card Stock (Cards are attached)**

**Laminate cards, if possible, so they can be used over and over.**

These cards can be used individually with students, small or large group. They can be used for ideas for journal entry's and also in your writing center.

## EVALUATION OPTIONS

- 1) Have students tell or write 5 words in their journal that describe apples.
- 2) Have students illustrate and then tell or write Johnny Appleseed's story in sequence.
- 3) Observe student's participation during group and individual activities.
- 4) Use a checklist to record student's knowledge of tally marks and use of graphs.
- 5) Save some of the student's work that measure a standard in their portfolios.

- 6) Evaluate student's illustrations and journal entry's for comprehension and the meeting of standards.

## EXTENSIONS AND VARIATIONS

- 1) Apple prints can also be used to make a border for a bulleting board, or create a class mural. Draw a large tree outline on butcher paper; have students make apple prints on the tree.

- 2) Students can make a collage of words and phrases that describe apples.

- 3) Students can go to other classrooms and perform their poem and songs.

- 4) Teach the students about nutrition and the food guide pyramid. (1 apple is one serving from the fruit group) Students will learn the number of servings needed from each group on a daily basis.

- 5) Make apple characters and have students make apple puppets and put on a puppet show with their apple people.
- 6) Classroom or grade level field trip to an apple orchard to learn about how apples grow.

- 7) Have students make a class cookbook filled with favorite apple desserts and snack recipes.

- 8) Invite parents or grandparents in for Johnny Appleseed's Birthday celebration. The children can put on a performance for them from the songs, poem, puppet shows they have learned. We can serve our favorite apple desserts and snacks.

## RESOURCES

Arizona-Accel Connection.  
Clements, Joe and Joe Costante, Fort Bowie National Historic Site.  
Internet sites: Dept of Health Services/azg5-7.htm, Apple Quest.htm, Michigan Apples.com

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Olsen, Madeline. Johnny  
Appleseed. Scholastic books,  
Easy Reader. September  
2001.

The Mailbox: The idea  
Magazine for Teachers  
Volume 16-Number 4  
Aug/Sept.

Project Food Land and  
People, Resources for  
Learning

Books that reinforce the  
lesson concepts.

Additional Literature to use  
with this unit:

- Johnny Appleseed by  
Steven Kellogg
- The Giving Tree by Shel  
Silverstein
- Rain Makes Applesauce by  
Julian Scheer
- Ten Apples Up On Top by  
Theodore LeSieg
- The Seasons of Arnold's  
Apple by Gail Gibbons
- Apples and Pumpkins by  
Anne Rockwell

Resource Advisors:

Michelle Fullmer,  
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## EDUCATORS' NOTES

<p><b>CURRICULUM DESIGN</b> Wendalynn Schmidt Kindergarten Teacher San Tan Elementary Higley District #60</p>
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