NEW YORK AG IN THE CLASSROOM

AG LITERACY WEEK 2009

TEACHER RESOURCE GUIDE

Dear Educators,

We'd like to take this opportunity to thank you for welcoming our volunteers into your classrooms to celebrate NY Agriculture Literacy Week and National Agriculture Week.

Every year teachers across NY state open their doors and it's no exaggeration to say that there is simply no way Ag Literacy Week could happen without you. Through your help and feedback, we've been able to introduce new elements every year, and increase participation across the state. We hope that you'll continue to work with us by participating in Agriculture Literacy Week next year March 15th-19th, 2010 in which we will be celebrating the NYS Timber Industry.

On behalf of our wonderful county coordinators, the NY Apple Association, and our many partners throughout the state, thank you for your support.

Sincerely,

Heather Davis

Coordinator New York Agriculture in the Classroom

Cornell Agricultural Outreach and Education

WHAT'S INSIDE ~

Overview of NYAITC

Apple Overview

ALW Activity & Worksheet

Supplemental Activities/lessons

Apple Resources

Remember!!

When you complete the online teacher survey you will receive a free gift from NYAITC!!

Go to www. nyaged.org/aitc/literacy.htm to complete the survey!

Thank you for you participation

NEW YORK AGRICULTURE IN THE CLASSROOM

NYAITC is a partnership between Cornell University, NYS Department of Agriculture & Markets, NYS Education Department, and New York Farm Bureau. The program operates out of the Department of Education at Cornell University and is funded through the NYS Department of Ag & Markets, and from other grants, donations, and specialty license plate fees.

Agricultural Literacy is important for everyone

Getting through the day without agriculture is impossible, yet many people don't understand and appreciate this connection to daily life or the vital role agriculture plays in our economy. While less than 2% of our population is involved in producing food, 20% of our nation's workforce is involved in food processing, marketing, distribution, and sales — and we all eat! A national set of agricultural literacy standards cover the multi-faceted nature of food and fiber systems across the curriculum in the areas of food systems, history, geography, culture, science & technology, the environment, business, economics, nutrition, and health.

life.

Bringing Learning to Life

NYAITC offers programs, workshops, classroom visits, and instructional resources through a network of local Cornell Cooperative Extension educators, Farm Bureau volunteers, teachers, and others to help New Yorkers:

- Appreciate the economic, social, historical, and scientific importance of agriculture in our society
- Develop an accurate picture of today's agriculture
- Explore the many career opportunities in all areas of agriculture
- Recognize the connection between agricultural production and the daily consumption of food and fiber products

With a special focus on elementary grades, we help teachers integrate knowledge about agriculture and the food & fiber system into the curriculum and address NYS learning standards, to provide relevant learning experiences across the curriculum that enhance student achievement and bring learning to life.

New York Ag in the Classroom
10 Kennedy Hall Cornell University Ithaca, NY 14853
www.nyaged.org/aitc 607-255-9252

Workshops
Workshops are offered for teachers, extension educators, and volunteers

Kids Growing Food
Over 325 school gardens have been started throughout New York connecting students to the food system

Bluebird Project
A mini-grant program for teachers to foster connections between classrooms and farms and the environment

Be Aware of NY Agriculture Contest
Pre-K - 6th grade contest promotes learning about agriculture through artwork, poems, and stories

Teacher of the Year
A teacher is recognized each year for outstanding innovation in integrating agricultural concepts into the curriculum

Empire Educator newsletter
Available in electronic format on the NYAITC web site at www.nyaged.org/aitc

Ag Literacy Week
Volunteers throughout the state will go into classrooms to read a book with an agricultural theme and talk to students about agriculture. The book will be donated to the school library with a special bookplate recognizing the donor and NY Ag Literacy Week

Food, Land and People
Food, Land & People is a national science- and social sciences-based Pre-K to 12th grade curriculum. The curriculum consists of 55 hands-on lessons, with subjects ranging from environmental science and stewardship to human populations. NYAITC is the state affiliate agency for Food, Land, and People in New York. We have aligned the 55 lessons with New York State Learning Standards in all curriculum areas.

HOW ABOUT THOSE APPLES ~

Apples are one of the most popular, flavorful and healthful fruits grown in the world. Three-fourths of America's population, both young and old, name apples as one of their favorite fruits for snacking. They are also great with meals. Apples and processed apple foods are a great way to help children get the recommended five servings of fruits and vegetables daily, for their better health.

Apple growing is an important industry in America. The state of Washington ranks first in the number of bushels grown, followed by New York, Michigan, California and many other states. Worldwide, the United States ranks second to the People's Republic of China in apple production.

The first U.S. apple trees were planted by pilgrims in the Massachusetts Bay Colony. In the early 1800s John Chapman, better known as Johnny Appleseed, traveled across the Ohio Valley carrying bags of apple seeds. As he ventured westward, he planted seeds and grew apple trees wherever he roamed to ensure that settlers living in the Western frontier would have nutritious apples to eat.

Today, the science of apple growing is called pomology. Over the years, many people have worked together to refine methods to produce the best tasting, best-formed apples possible. It takes about four to five years for apple trees to produce their first fruit. Apple trees are grown on farms, better known as apple orchards. In spring apple trees blossom with fragrant, sweet-smelling white flowers. When the blossoms fall off the pollinated flowers, baby apples begin to grow in their place.

The apple crop is harvested in the fall, when the apples are fully grown and ripened. The nation's apple crop is picked from the trees by hand, then washed, packed and delivered by refrigerated trains and trucks to markets and grocery stores, or made into apple juice, apple cider, apple butter, applesauce and other nutritious apple foods.

About 2,500 varieties of apples are grown throughout the United States. The top 10 apple varieties are: Red Delicious, Golden Delicious, Fuji, Granny Smith, Rome, McIntosh, York, Idared and Jonathan.

Apples and children go together naturally. We hope you find these ideas helpful in teaching your students about nutritious, delicious, versatile apples, and the apple industry.

**** See the NYS Apple Fact Sheet on page 15 for more information****

Core Facts:

About Apples and Nutrition

Apples are an easy way to eat more fruits and vegetables each day.

1. Apples come in many varieties – Apples come in a range of interesting flavors, offering a variety not available in most other fruits and vegetables.
2. Apples are convenient – Mother Nature's original fast foods, they can be eaten fresh or processed as sauce, juice and slices.
3. Apples are nutritious – Apples are a very good fruit for building healthy bodies.

A medium-sized apple (5.5 ounces or 154 grams, the size of a tennis ball):

- Contains no fat, and contains no saturated fat – helps reduce risk of cancer.
- Contains no sodium – helps reduce risk of high blood pressure.
- Is an excellent source of fiber – helps reduce cholesterol and may help prevent certain types of cancer.
- Has only 80 calories.
- Contains no cholesterol.
- Contains no artificial colors or flavors.

AG LITERACY WEEK 2009 ACTIVITY

Estimated Time 20-30 Min
Materials Needed: Amazing Apples Worksheet (2-sided), Chalkboard/whiteboard, Chalk/Marker
Vocabulary: Seed, Pollinate, Blossoms
Standards:

- NYS Standard 4: The Living Environment: elementary 4 & 6
- NYS Standard 1: Language for Information and Understanding: Elementary 1
- NYS Standard 2: Language for Literary Response or Expression: Elementary 2
- NYS Standard 4: Language for Social Interaction: Elementary 2
- Food & Fiber Literacy I: Understanding Food & Fiber Systems: A, 2-3

After reading the book *The Empire State Investigator: The Apple-sauce Bandit* explain that they are now going to become experts on apples with a fun activity and have them move over to their desks. When students are at their desks ask them the following questions -

- What was your favorite part of the story?
- Have you ever visited an apple orchard like the one Lily and Ty went to?
- Did you realize that those apples you saw at the apple orchard could be the same apples in the applesauce at the grocery store?

Explain to the students that now you are going to teach them a song that will help them remember the steps that it takes to get from an apple seed to the different apple products they see in the store. Pass out the *Amazing Apple Worksheet* which has the words to the song on the bottom.

Teach the students the song first by going through the words and then teach them the motions to the different lines. When they have it down ask for two volunteers to lead the class in presenting the song to you and their teacher.

After the students present the song give them lots of praise and then as a review as them to recite the steps and write them on their sheet (while you write them on the chalk board)

Steps:

1. Farmer plants a seed
2. Seed Grows into a tree (needs sunlight, water, nutrients)
3. In the spring trees grows pink blossoms
4. Honeybees pollinate the blossoms (
5. Apples grow where the blossoms were
6. In the fall the Farmers pick the apples
7. You get to eat those apples

CONCLUSION ~

Have the students answer these questions ~

1. Why are farmers important?
2. Why are bees important to apples?
3. What do you think would happen if we didn't have them around?

Explain that you are going to leave their teacher with a booklet with more fun apple activities and apples seeds for them to plant when the weather gets warm. Maybe they could have their own class orchard.

Give the materials to the teacher and thank the class!

Apple Song (to the tune of Itsy Bitsy Spider) ***Motions are in italic***

Once a little apple seed was planted in the ground ***(curl into a ball)***
Down came the rain, falling all around.
Out came the sun as bright as it could be
And that little seed
It became an apple tree ***(unroll & stand up with arms stretched out like tree branches)***

Now that apple tree was standing tall and proud
Honeybees came, buzzing all around ***(swing arms around)***
Out popped pink blossoms, pretty as they can be (*open hands to look like flowers)***
And that apple tree
It grew fruit ***(make hands into shape of a circle)***
for you and me (*point to each other)***

Then our friend the farmer walked all around! (*Marching in place***)**
Picking all the apples, before they hit the ground ***(reach up & pick an imaginary apple and putting them into a basket)***
He put them all in baskets and sent them all away ***(wave good bye)***
And that's how we get the apples (*hold an imaginary or real apple and point to everyone)***
That we eat today!

AMAZING APPLES

NAME _____

From Orchard to Table:

Write down the 7 Steps that it takes to go from apple seed to applesauce.

1._____

2._____

3._____

4._____

5._____

6._____

7._____

Apple Song

(to the tune of Itsy Bitsy Spider)

Once a little apple seed was planted in the ground
Down came the rain, falling all around.
Out came the sun as bright as it could be
And that little seed
It became an apple tree

Now that apple tree was standing tall and proud
Honeybees came, buzzing all around
Out popped pink blossoms, pretty as they can be
And that apple tree
It grew fruit
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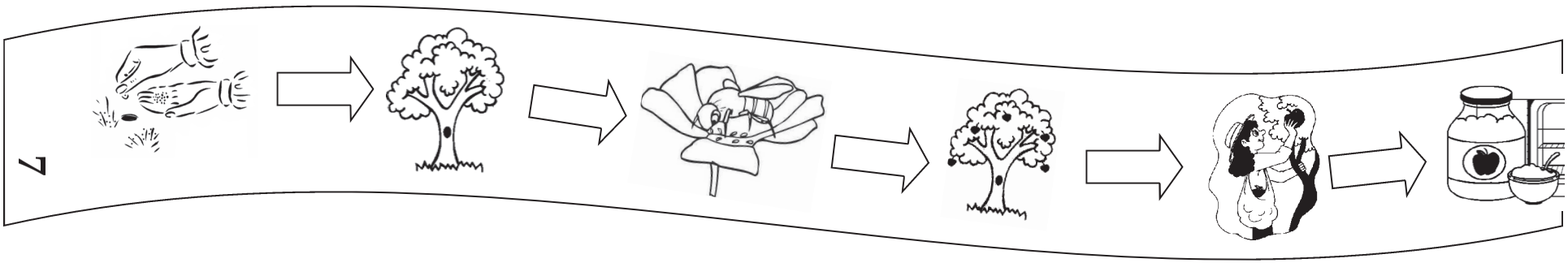
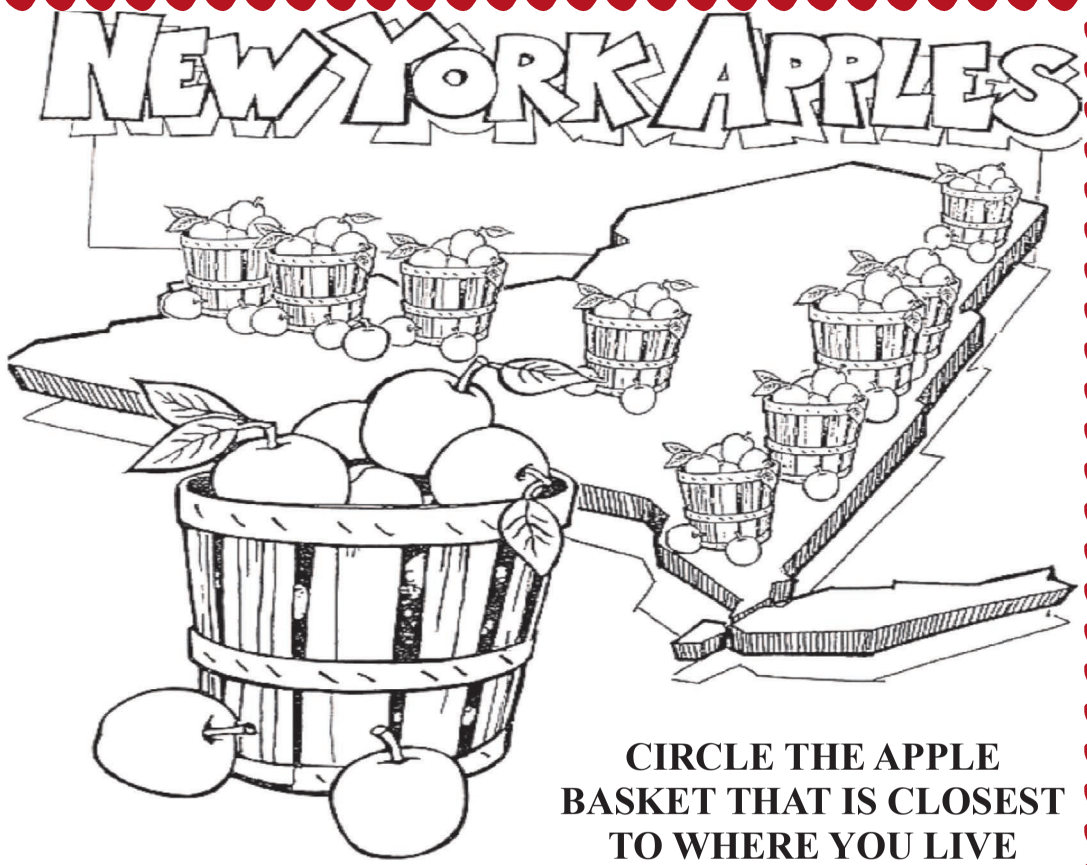
Then our friend the farmer walked all around!
Picking all the apples, before they hit the ground
He put them all in baskets and sent them all away
And that's how we get the apples
That we eat today!



Fill in the blanks below
Some of the answers can be found in your new book!

- NY State ranks_____ in apple production in the US.
- It takes an apple tree_____ years to make its first apple.
- Without _____ apple trees would not make any apples.
- My favorite way to eat an apple is _____
- The science of growing apples is called _____



CIRCLE THE APPLE BASKET THAT IS CLOSEST TO WHERE YOU LIVE

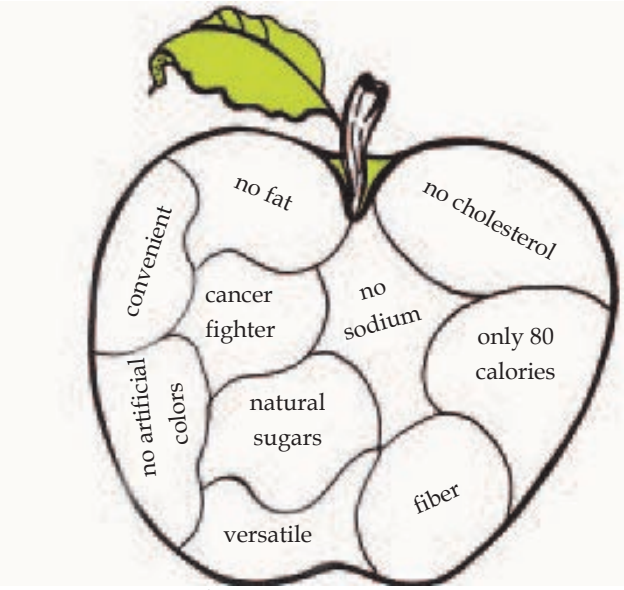
NYS Apple Association, 2009

Become an Empire State Investigator!

On a separate piece of paper write about what your class did on Ag Literacy Week and you may be featured in a real edition of the Empire State Investigator just like Lily and Ty.

For More information have your teacher or parent check out our website

www.nyaged.org/aitc



Healthy Bites

Prepare a large diagram of an apple showing "bite-size" segments about apple nutrition. Give each student a fresh apple. (Be sure to use a variety of red, gold and green!) As students take bites of their apples, discuss the different ways apples are healthy for them.

"5 A Day" And Apples

The Food Guide Pyramid advises us on what types of food, and how much of each food type, we should eat each day for better health. It recommends that we eat at least five servings of produce each day – two servings of fruits like apples, and three of vegetables.

Talk with children about:

- What foods does the Pyramid recommend we should eat the most of? The least of?
- How do the foods we eat keep us healthy? e.g., controlling weight, having plenty of energy, reducing disease risk.
- How can we get our "5 A Day" with apples, at meal and snack time?
- What counts as a serving of apple? (one tennis-ball sized apple; 6 ounces of 100% apple juice or cider; 2 cup of applesauce; 4 cup of dried apples)

Apple Sponge Prints

Have each student cut out an apple from a 12"x12" piece of white paper. Then dip sponges cut into apple shapes in either red, green or yellow tempera paint, and sponge paint a border around their paper apple. When dry, have students color in stems and leaves. Apple information is written inside the apples. After the apple information is shared, all apples can be combined into

Apple Orchard

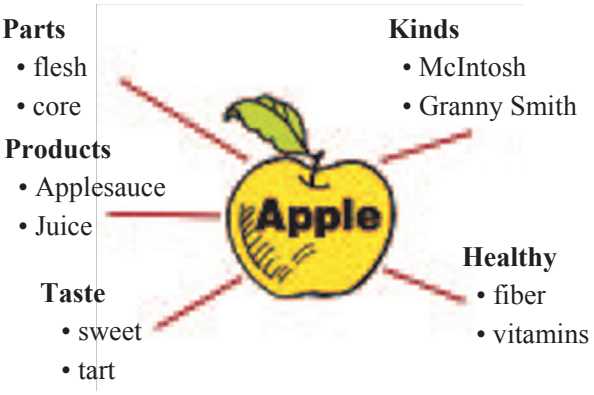
Create an apple orchard bulletin board display! Place three bare paper trees on the board – one for red apples, the others for gold and green. Give each student a dessert-sized paper plate, green for leaves, brown paper for a stem and a choice of red, yellow or green one-inch stack of tissue paper squares. Each student writes one or more things he/she learned about apples inside the paper plate, then glue the tissue squares flat all around the ridge of the plate. A stem and torn-paper leaves are added to complete the apple. Hang apples in the trees. Have students make additional torn paper leaves to cover the branches.

Adapted from *Apples: A Class Act* by the US apple Association

APPLE ACTIVITIES ~ WRITING

An Apple Web

Have students organize apple information by involving them in a webbing activity. Draw an apple on the board or chart paper and label it with specific topics related to apples. Record student responses under each topic heading. The web could be used to generate ideas for informational writing in journals, class books, or at a writing center.



Apple Journals – Informational Writing

Include 5-10 blank pages inside an apple-shaped book for each student. Have them draw/write in their journal whenever new information is learned, discussed or researched. Time should be given periodically for students to share their journal entries with their friends and teacher.

Brainstorming

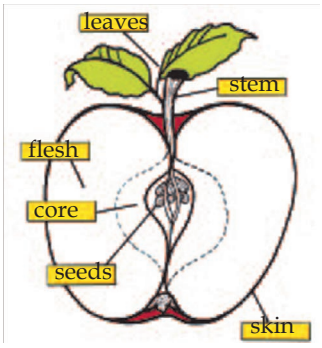
Ask students what words and ideas come to mind when they think about apples. Make a semantic map of student responses on the chalkboard (see sample), showing relationships among ideas raised. At the end of the unit, make another semantic map of students' responses and compare the two.

On a separate chart, list the students' questions about apples as they arise during the brainstorming session. This list can become the starting point for library research. Add questions as studies progress.

APPLE ACTIVITIES ~ SCIENCE/HISTORY

Apple Parts

Prepare a chart which shows the parts of an apple. Print the name of each apple part on separate cards. Have students match the word cards to the correct apple part on the chart.



Apple Mummies

How do people preserve food? Students can speculate -- could refrigerate, seal in an airtight wrapping or cover with salt. Students could learn about mummies. Mummies were found in deserts, ice, bogs or in ancient Egyptian tombs.

Experiment

Cover an apple or apple slice with table salt, or Epsom salts, or baking soda. Leave one apple uncovered. After a week check to see which apple lost the least or most moisture. The apple that wasn't covered lost the least amount of moisture. The apple covered in Epsom salts lost the most moisture when it was absorbed by the salt. Baking soda also dehydrated the apples.

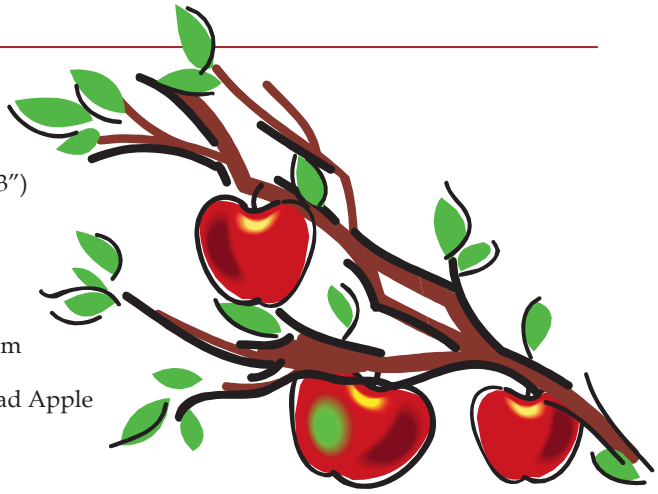
Apple History Timeline

Present information about the history of apples to students. Brainstorm with students about how to create a time line that shows the important information relevant to apples' history. Make a time line on the chalkboard with string and index cards. (apples cut out from construction paper ahead of time could be used).

Adapted from *Apples: A Class Act* by the US apple Association

APPLE ACTIVITIES ~

Apple Charm



Materials

Yarn	Small Plastic Bags (2″x3″)
Scissors	Hole Punch
Apple seeds = Seed	Wooden beads = Tree
Foam Bees or Butterflies = Pollinator	Foam Flowers = Blossom
Green Plastic Beads = Green Apple	Red Plastic Beads = Read Apple

Directions:

1. Talk about the life cycle of an apple tree
2. Give each student one plastic bag
3. Have the students put one apple seed (seed), one wooden bead (tree), one foam bee or butterfly (pollinator), one foam flower (blossom), one green bead (green apple), and one red bead (red apple) in the bag
4. Close bag and punch hole on the bag - above the seal
5. Cut a long piece of yarn and thread it through the hole on the bag
6. Tie off the yarn and wear as necklace to help the students remember the stages of the apple tree life cycle

APPLE ACTIVITIES ~ MATH

Symmetry

Direct students to cut an apple in half and have them compare the halves. Are they Symmetrical? Have the students draw the inside of their apples.

Estimating

Have children estimate how many apples would be needed to fill in an outline of their bodies. Ask for a volunteer to be traced on bulletin board paper. Have other volunteers cut out apples of approximate actual size from construction paper. After students make their estimate see how many "fill in" the shape of the body. How many bushels does that equal if 1 bushels (47 medium apples per bushel).

Graphics

Ask students to bring in their favorite kind of apple. (tell them to make sure they know what variety they have.) Make a bar graph listing each apple variety that was represented in the activity and how many times each variety was chosen as the favorite.

Circumference

Use string, find the circumference of a various types of apples. Does the circumference vary depending on the type of apple? What else could affect the size of an apple?

Growing Apple Trees from Seeds

Materials:

Apple Seeds. Plastic Sandwich Bags, Damp peat or sphagnum moss (1 cup) Permanent Marker, Seed Starting mix or potting soil, cell packs, starting tray, six inch pots.

Place seeds in a plastic bag full of moist peat moss. If you have seeds from more than one variety of apple, use separate bags. Label them with permanent marker, and keep them moist but not soggy.

Place bags in the vegetable crisper for two to three months, or until the seeds begin to sprout. (As a comparison, try leaving one bag at room temperature; see "Going One Step Further" below.) Check them often because there is variation in the time till seeds will sprout. The crisper is ideal because the best temperature for this process of cold stratification is 40°F. Below 32° is too cold, and above 50° is too warm.

After the seeds have sprouted, remove them from the plastic bags and plant, one per cell, 1/2 inch deep in potting soil or seed starting mix. Place cell packs on a tray on a sunny, south –facing window sill for two to three weeks. Keep them well watered but not soggy. Then transplant each seedling to a six-inch pot filled with any good potting mix. Place pots on the same south-facing windowsill or under grow-lights. Water whenever the surface of the pots begins to dry out. In mid-May, or around the last frost-free date in your area, the seedlings can be transplanted outside (see activity "Planting Apple Trees," below). Surround each seedling with hardware cloth to protect them from deer and rabbits. By the next autumn you will have young trees that are several feet tall.

Going One Step Further

As an experiment use some apple seeds that have not been chilled. (If you boy them in the store they may have been in cold storage, so you will need to get them from a source that you know hasn't chilled them.) Plant these seeds along with the seeds that have been chilled, being careful to label each pot. Why didn't the seeds that were not chilled germinate? Why is this important?

Leave a potted tree indoors where it is warm all winter. Leave another outdoors. In the spring observe the differences. What to you Expect will happen?

Activities take from
The Appealing Apple by Marcia Eames-Sheavly
Cornell Cooperative Extension

Planting Apple Trees

Materials

At least two varieties of apples (for cross pollination), Shovel, Large garbage bag or tarp

You will need to know whether your trees are on standard root-stock s or size controlling (dwarf) rootstocks. If you are not sure ask when you buy them.

Optional :Invite a tree nursery employee to plant trees as a demonstration

It's easy to plant fruit trees but more challenging to make sure that they have all the conditions they need to grow! All fruit trees-not just apples-prefer a sunny site, protected from wind and frost, with a well-drained but preferable moist soil. Ideally, you should prepare your site the year before you plant by testing the soil to check its pH and nutrient level and then modifying the soil by working in whatever ingredients the soil test results say you need. For example, many people need to add lime to raise the pH of the soil to an acceptable level.

It's also important to choose varieties that are suitable for your location. Your best bet is to call the local Cooperative Extension office and find out which varieties are ideal for you region. Cooperative Extension also may have soil test kits and other resources that will be useful. Choose disease-resistant varieties for easier care.

When your site has been prepared, you're ready to go. Early spring is the best time for planting apple trees. Plant as soon as you can work up the ground, before the trees begin to grow. Before you plant, remove broken or injured roots from the trees. To get them off to a good start, soak the roots in a pail of clean, cool water for up to, but no longer than several hours.

Dig holes large enough to accommodate the tree roots in their natural position. Set the topsoil aside on the garbage bag or tarp. This will keep the area clean and make it easier to dump the soil back over the tree roots.

Set trees at about the same depth or an inch or two deeper than they were grown in the nursery. Move the tree up and down gently an inch or so as you shovel soil back over the roots. This helps to settle the soil under and around the roots and gets rid of air spaces. Pick up the tarp and empty the rest of the soil over the roots. Lightly tamp the soil, and water immediately. Give trees a good soaking each week unless you receive plenty of rainfall. Do not mix fertilizer into the hole—it can damage the roots.

APPLE RESOURCES ~ WEB - LINKS

Apple Education Resources
http://www.ohioapples.org/
ohio_apple_teacher_resources.htm
Apple teaching resources from Ohio Apples.

Meet Anthony Apple
http://www.dole5aday.com/ReferenceCenter/
Encyclopedia/Apples/index.jsp
Learn about apple history, facts and much more.

New York Apple Country Teacher Kit
http://www.nyapplecountry.com/teacherkits.htm
Grades K-6 - Includes a complete set of integrated classroom activities that encompass art, language, health & nutrition, science, social studies and math.

Seasons in the Apple Orchard
http://www.bestapples.com/growers/
growers_seasons.shtml
A look at what happens during each season in the orchard.

Apple Field Trip Materials
http://www.waga.org/teachers.html
Tips for apple orchard field trips

Journey of an Apple
http://apple.yakimavalleymuseum.org/apple/journey.html
Follow the journey of an apple from growing to eating.

How Apples Get to Your Store
http://www.bestapples.com/growers/growers_store.shtml
Follow apples from pruning to shipping to your local grocery store.

The Story of Johnny Appleseed
http://www.hipark.austin.isd.tenet.edu/projects/second/
ja/ja.html
See how a 2nd grade class created written paragraphs and computer drawing about Johnny Appleseed.

Johnny Appleseed Worksheets
http://www.enchantedlearning.com/school/usa/people/
Appleseedindex.shtml
Printable worksheets on the life and history of Johnny Appleseed

More Johnny Appleseed Information
http://en.wikipedia.org/wiki/Johnny_Appleseed
Detailed information about Johnny Appleseed.

Apple Education
http://www.waga.org/ed.html
Apple education kit from the Wisconsin Apple Growers.

Apples
http://www.angelfire.com/tx4/lessons/apples3.html
How the plant life cycle works with apples.

Apple Orchard Photos
http://www.kickapoo-orchard.com/tour.html
Kickapoo Orchard in Gays Mills, Wisconsin.

The Apple Project
http://ecrp.uiuc.edu/v4n2/danyi.html
A hands-on apple project for elementary school students

Getting to the Core – Apples and Orchards
https://pubsplus.uiuc.edu/AK-15.2.html
How do apples grow? Where do all the varieties of apples come from? Learn the answers to these questions and more. Take an inside look at apples and their history. Getting to the Core: Apples and Orchards includes hands-on activities and games, things to make and things to eat, videos, posters, and books.

Education World's Apple Theme
http://www.educationworld.com/a_lesson/
lesson077.shtml
Lots of educational apple related activities

National Agriculture in the Classroom
http://www.agclassroom.org
Pre-K—12 Agriculture Lessons from throughout the country

US Apple Association
Www.usapples.org
Activity booklets and resources for K-6

Washington Apple Commission
Www.bestapples.com
Apple games, recipes, facts and activities

University of Illinois—Apples & More
http://urbanext.illinois.edu/apples/
Tons of information and resources about apples

APPLE RESOURCES ~ BOOK LIST

NONFICTION

Burckhardt, Ann L. Apples (1996) (P)

A general overview of apples with full page color photos accompanying simple text.

Davies, Kay and Oldfield, Wendy My Apple (1994) (P)

Basic observations of an apple by a little girl plus apple prints and baking idea.

Johnson, Sylvia Apple Trees (1983) (E/M)

Discusses the growth and cultivation of apple trees and the development, harvest, and storage of the fruit.

Johnson, Hannah Lyons From Apple Seed to Apple Sauce (1977) (E/M)

A thorough description of apple development and farming.

Lawlor, Laurie The Real Johnny Appleseed (E/M)

A factual account of John Chapman's life and times.

Maestro, Betsy How Do Apples Grow? (1992) (P)

The development of apples from a bud on a dormant tree to the delicious fruit we eat, with drawing of the various stages the fruit goes through.

Mircucci, Charles The Life and Times of the Apple (E/M)

Clearly and concisely presents a variety of facts about apples: how they grow, crossbreeding, grafting techniques, harvesting, uses, varieties and history with many informative and entertaining illustrations.

Patent, Dorothy Hinshaw An Apple A Day (E)

An overview of apples from tree planting to processing and eating.

Parnall, Peter Apple Tree (1987) (E/P/M)

Story of an old apple tree and the many insects, birds and mammals that interact with it through the seasons. Poetically written.

Schneiper, Claudia An Apple Tree Through the Year (1992) (E)

A comprehensive account of the changes of an apple tree during the four seasons, including the jobs of an apple growers, fruit development, orchard pests, and boldfaced vocabulary words in the text.

Silverstein, Alvin and Virginia Apples: All About Them (E/M)

A multifaceted account of apples: history, science, mythology, crafts, recipes.

Watts, Barrie Apple Tree (P)

Shows and tells how an apple develops from a bud to a ripe fruit.

FICTION

Anderson, LaVere The Story of Johnny Appleseed (1974) (P/E)

The legend of John Chapman.

Gibbons, Gail The Seasons of Arnold's Apple Tree (1984) (P)

A boy interacts with his apple tree in many ways through the seasons of the year. Also a pie recipe and cider press diagram.

Hall, Zoe The Apple Pie Tree (1996) (P)

Describes an apple tree as it grows and flowers, while in its branches robins make a nest and raise a family.

Noble, Trinka Hakes Apple Tree Christmas (1984) (P/E)

In 1881, when their apple tree is blown over during a storm, a farm girl and her family discover that the tree was important to each of them for different reasons.

Priceman, Marjory How to Make an Apple Pie and See the World (1994) (P)

Since the market is closed a girl travels around the world to collect the ingredients for the apple pie she will make. Shows the work that goes into items we take for granted—cinnamon, salt, sugar, etc. and includes a pie recipe.

Rockwell, Anne Apples and Pumpkins (1989) (P)

A family takes a trip to a farm to pick apples and harvest pumpkins.

Slawson, Michele Benoit Apple Picking Time (1994) (P)

A family's day in the orchard picking apples from a young girl's point of view.

Tryon, Leslie Albert's Field Trip (1993) (P)

A class of animal characters takes a field trip to the apple orchard where they pick apples sort them, put them in storage, juice them and taste apple pie.

Turner, Ann Apple Valley Year (1993) (P)

Life on an apple farm through the year.

(P) Primary – Kindergarten to Second Grade
(E) Elementary – Third to Fifth Grades.
(M) Middle School – Sixth to Eighth Grades

NY Apple Association, 2009.
www.nyapplecountry.com

NEW YORK APPLE INDUSTRY FACT SHEET

1. **New York is the second largest apple producing state in the United States, with an average of 25 million bushels of production annually.**

2. Apples are grown on over 52,000 bearing acres in six major production districts throughout the entire state: Champlain Valley, Eastern Hudson Valley, Western Hudson Valley, Central Lake Country and Niagara Frontier

3. Major apple producing counties are: Wayne, Ulster, Orleans, Niagara, Clinton, Columbia, Monroe, Orange, Onondaga and Dutchess.

4.There are approximately 694 commercial apple growers in New York State.

5. On average, 13,250,000 bushels (53%) are utilized as fresh fruit:

- **663,000 bushels (5%) are marketed directly by growers and "roadside markets".**
- **1,325,000 bushels (10%) are exported to other countries.**
- **11,262,000 bushels (85%) are marketed domestically through independent and chain supermarkets, food service and military outlets.**

6. On average, 11,750,000 bushels (47%) are utilized for processing:

- **4,465,000 bushels (38%) are processed into juice and cider.**
- **5,522,500 bushels (47%) are processed into canned products, including sauce, slices and pie filling.**
- **1,175,000 bushels (10%) are processed into frozen slices.**
- **587,500 bushels (5%) are processed into vinegar, jelly, apple butter, mincemeat, and dried products.**

7. Last year's production (2005) is estimated to total 24.7 million bushels, with a value of $268 million.

8. The top 10 varieties in descending order of production volume are: McIntosh, Empire, Red Delicious, Cortland, Golden Delicious, Rome, Idared, Crispin, Paula Red plus Gala, Jonagold, Jonamac
9. New York State grown and packed apples are promoted by the New York Apple Association under the *Apple Country* ® brand and logo.

10. New York State grows and markets more commercial varieties of fresh eating apples than any other region of the country, including the 20 most popular varieties: McIntosh, Empire, Red Delicious, Cortland, Crispin, Golden Delicious, Spartamac, Idared, Ginger Gold, Jersey Mac, Paulared, Jonagold, Macoun, Jonamac, Fuji, Gala, Rome, Braeburn, Fortune and Honeycrisp.

11. New York apple packers and shippers utilize cutting-edge technology in the storing, grading and packing of fruit. New York pioneered the development of "CA" (controlled atmosphere) storage of apples, and is in the forefront of electronic size, color and quality grading technologies.

12. New York State growers are adapting new cultural methods such as Integrated Pest Management (IPM), which uses scientific and natural techniques to cut down on the use of chemicals, and new planting systems, such as Y-shaped trellises or posts and wires to support the trees. This allows more sunlight to get to the fruit, producing a better colored, more flavorful apple. In addition, growers are changing over from the old standard-size trees to the smaller more compact dwarf and semi-dwarf rootstocks, which allow for increased tree densities and improved yields.

13. The New York apple industry provides employment for thousands of New Yorkers.

- **694 family farms10,000 direct agricultural jobs**
- **7,500 indirect jobs involved with handling, distribution, marketing and shipping of apple exports**
- **Thousands of other indirect jobs including agricultural supplies (equipment, chemicals and services), financial services and apple processing**

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