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Ag in the Classroom
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Investigating Apples

Grade Level: K-2

Estimated Time: 30 minutes/day, 5 days

Objectives: Students will use their five senses to investigate apples, identify and model the parts of an apple, make homemade applesauce, and learn how apples are grown.

Day One: Introduction and Five Senses Chart

Materials:

- **Up, Up, Up! It's Apple Picking Time* by Jody Fiches Shapiro
- *Red, yellow, and green apples
- *Cutting board
- *Knife
- *Paper towels
- *5 Senses Chart (see below)
- *Red, yellow, and green unifix cubes

Procedures:

1. Read the book *Up, Up, Up! It's Apple Picking Time* by Jody Fiches Shapiro. As you read, ask students:
 - *Where do apples grow?
 - *What colors can apples be?
 - *What are apples used for?
2. Tell students that they will be learning more about apples this week.
3. Have students wash their hands.
4. Remind students that our five senses are how we learn about the world. Ask them to name the five senses—see, smell, feel, hear, taste. Explain that they will be using their five senses to observe apples today.
5. Create a 5 Senses Chart similar to this:

APPLES				
See	Smell	Feel	Hear	Taste

6. Show students the three different types of apples (red, yellow, green). Ask them to describe what they can see. Point out the skin, stem, and calyx. (The calyx is the remaining part of the apple blossom located on the end of the apple, opposite of the stem). Cut an apple in half crosswise. Ask students to describe what they see. Point out the shape of the star, the seeds in the star pockets, and the flesh. Write their descriptive words on the chart under the “see” column. Explain that descriptive words are called adjectives.

7. Cut each apple into slices. Give a red, yellow, and green slice to each student. Ask them to smell the apples and describe what they smell. Write their adjectives on the chart under the “smell” column.

8. Ask students to feel the apple slices and describe what they feel. Write their adjectives under the “feel” column.

9. Ask students to take a bite out of one of their apple slices and describe what they hear. Write their adjectives under the “hear” column of the chart.

10. Have students to taste their apple slices and describe what they taste. Write their adjectives under the “taste” column of the chart.

11. Have students vote to tell which apple they liked the best. Say, “Raise your hand if you liked the red apples best.” Count and record on the board. Then have students raise their hand if they liked yellow the best. Count and record on the board. Finally, ask who liked the green apple slice best. Count and record on the board. Then take the unifix cubes and stack them together to create a bar graph to show the preferences of the class. Discuss which color had the most votes and which had the least.

Day 2: My Apple Book

Materials:

- *Apple Book Template printed on red, yellow, or green card stock, 1 per student (front cover of book) (https://naitc-api.usu.edu/media/uploads/2015/11/09/Apple_Book_Template.pdf)
- *Blank sheet of red, yellow, or green card stock, 1 per student (back cover of book)
- *Notebook paper, 5 pieces per student
- *Hole punch

*Ribbon, yarn, or a stapler

*Pencils

Procedures:

1. Remind students of the lesson on apples yesterday.
2. Show the class the five senses chart and briefly discuss some of the adjectives listed.
3. Explain that today they'll use the chart to write a book about apples.
4. Give each student a sheet of paper. (Page 1) Have them write: "Apples look _____." Show them how to look on the chart and choose an adjective from the "see" column.
5. Hand out a second sheet of paper. (Page 2) Have students write: "Apples smell _____." Have students refer to the "smell" column to complete their sentence.
6. Repeat this process for pages 3-5 of the book.
 - Page 3: Apples feel _____.
 - Page 4: Apples sound _____.
 - Page 5: Apples taste _____.
4. Once all five pages are complete, give each student a front cover and a back cover (card stock), punch holes, and secure using ribbon/yarn or a stapler.
5. Let students have five minutes to read their book with a partner.

Day 3: Identifying the Parts of an Apples

Materials:

*Apple

*Cutting board

*Apple slicer

*Knife

*1 set of Apple Parts Cards (https://naitc-api.usu.edu/media/uploads/2015/11/09/Apple_Parts_Cards.pdf)

Preparation:

Before class, print and cut out one set of Apple Parts Cards to use as labels during the demonstration.

Procedures:

1. Explain that the students are going to learn about the different parts of an apple today.
2. Cut an apple with an apple slicer. Peel the skin off of one slice. Explain that the skin covers and protects the flesh and seeds. Place the "skin" card label next to it.
3. Show the students the peeled apple slice. Tell students that this is called the flesh. It's the part that's juicy and sweet that we eat. Label it with the correct card.
4. Pull the stem off of the apple core. Tell students this is the stem. It attaches to the apple tree, bringing it water and nutrients. Label with the correct card.

5. Pull some seeds out of the core. Ask students if they know what they are. Explain that the seeds can be used to grown new apple trees, but it takes a long tome to grow a new apple tree from seeds. Label with the “seeds” card.
6. Slice off the bottom of the core. Show students the calyx. Explain that apples develop form flowers. The calyx is what’s left of the apple blossom. Place the calyx with the “calyx” card.
7. Tell students that tomorrow we will make a model of an apple.

Day 4: Apple Model

Preparation:

Make an example Apple Model.

Materials:

*Example of Apple Model (make your own following the instructions in Activity 4)

*4.5” x 9” yellow, red, or green construction paper

*5” x 9” white construction paper

1” x 3” brown construction paper

*Brown, green, and black construction paper

*Glue sticks

*Apple Parts Cards, 1 set per student (https://naitc-api.usu.edu/media/uploads/2015/11/09/Apple_Parts_Cards.pdf)

Procedures:

1. Explain to the students that they will be making a paper model of the parts of an apple.
2. Show students the example model. Point out each part to review what was taught in Activity 2. The skin covers and protects the apple’s flesh and seeds. The flesh is the sweet part of the apple. The stem is what attaches the apple to the apple tree. It brings water and nutrients to the apple when it’s on the tree. The seeds can be used to grown new apple trees. The calyx is what is left of the apple blossom.
3. Give each student two pieces of either red, yellow or green construction paper. Have them cut the top and bottom shape of an apple and bite marks to represent the apple’s skin. Glue the colored papers on each end of the white rectangle, which represents the apple’s flesh.
4. Glue the brown rectangle on top of the apple to represent the stem. Cut the green paper into the shape of a leaf and attach it to the bottom of the stem.
5. Cut a brown piece of paper to form the shape of a calyx and glue it onto the bottom of the apple.
6. The black paper can be cut into the shape of seeds and attached tot he flesh of the apple.



7. Cut out the Apple Parts Cards. Have students label each part of their apple by gluing the cards in place.

Activity 5: Making Applesauce

Materials:

- *Crockpot
- *Crock Pot Applesauce recipe ([https://naitc-api.usu.edu/media/uploads/2018/03/26/Crock Pot Applesauce.pdf](https://naitc-api.usu.edu/media/uploads/2018/03/26/Crock_Pot_Applesauce.pdf))
- *Apple peeler corer slicer
- *8 tart apples
- *1 cup sugar
- *1 stp cinnamon
- *2 cups water
- *2 tablespoons lemon juice
- *Liquid measuring cup
- *Teaspoon
- *Wooden spoon
- *Plastic cups, 1 per student
- *Plastic spoons, 1 per student

Procedures:

1. Have students wash their hands.
2. Tell students that apples are used to make many different things like apple juice, apple cider, vinegar, applesauce, desserts, and more. Tell them that today we'll make homemade applesauce.
3. Show students the recipe. Point out the ingredients and directions.
4. The apples need to be peeled, cored, and sliced. Show students how the apple peeler corer slicer works and which part are sharp. Have a few students take turns using it to peel, slice, and core the apples.
5. Have a few students add the apples to the crockpot and mix in sugar and cinnamon. Let several students take turns stirring.
6. Pour water and lemon juice on the apples. Have students take note of the time. Tell them we'll cook on high for 3-4 hours and enjoy the wonderful smell!
7. In 3-4 hours (when the apples are soft), have students take turns mashing the apples into applesauce using the potato masher. Give each student a cup of applesauce to taste.

South Carolina State Standards:

Kindergarten—

K.RC.13.1: Engage in whole and small group reading with purpose and understanding.

K.LCS.8.1: With guidance and support, identify words, phrases, illustrations, and photographs used to provide information.

K.MDA.4: Represent data using object and picture graphs and draw conclusions from the graphs.

K.S.1A.1: Ask and answer questions about the natural world using explorations, observations or structured investigations.

K.L.2A.4: Analyze and interpret data to describe how humans use their senses to learn about the world around them.

K.L.4.5: With guidance and support, use adjectives.

K.RL.4.1: Read emergent reader texts with purpose and understanding.

K.L.2A.1: Obtain information to answer questions about different organisms found in the environment (such as plants, animals, or fungi).

K.MDA.1: Identify measurable attributes (length, weight) of an object.

First Grade—

1.RC.13.1: Engage in whole and small group reading with purpose and understanding.

1.LCS.8.1: Identify words, phrases, illustrations, and photographs used to provide information.

1.MDA.5: Draw conclusions from a given object graphs, picture graphs, t-charts, tallies, and bar graphs.

1.L.4.5: Use adjectives and adverbs.

1.S.1.1A.8: Obtain and evaluate informational texts, observations, data collected, or discussions to 1) generate and answer questions about the natural world, 2) understand phenomena, 3) develop models, or 4) support explanations. Communicate observations and explanations clearly through oral and written language.

1.L.5A.1: Obtain and communicate information to construct explanations for how different plant structures (including roots, stems, leaves, flowers, fruits, and seeds) help plants survive, grow, and produce more plants.

1.MDA.3: Use analog and digital clocks to tell and record time to the hour and half hour.

Second Grade—

2.RC.13.1: Engage in whole and small group reading with purpose and understanding.

2.LCS.8.1: Identify how the author uses words, phrases, illustrations, and photographs to inform, explain, or describe.

2.MDA.10: Draw conclusions from t-charts, object graphs, picture graphs, and bar graphs.

2.L.4.5: Use adjectives and adverbs, and choose between them depending on what is to be modified.

2.S.1A.2: Develop and use models to 1) understand or represent phenomena, processes, or relationships, 2) test devices or solutions, or 3) communicate ideas to others.

2.MDA.6: Use analog and digital clocks to tell and record time to the nearest five minute interval using a.m. and p.m.

Source: Adapted from the Lesson “A is for Apples” by Lynn Wallin.

(<https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=374>)