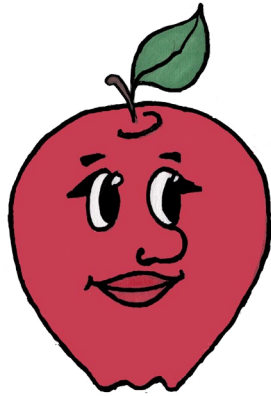




3-5th Grade



# October

## HARVEST OF THE MONTH

# APPLE

### NC Standard Course of Study

#### Language Arts:

**RI.3.7** Use information gained from illustrations and the words in a text to demonstrate understanding of the text.

**L.3.1** Demonstrate command of the conventions of standard English grammar and usage when writing and speaking; demonstrate proficiency within the 2-3 grammar continuum.

**RI.4.7** Interpret information presented visually, orally, or quantitatively and explain how information contributes to an understanding of the text in which it appears

**L.4.1** Demonstrate command of the conventions of standard English grammar and usage when writing and speaking; demonstrate proficiency within the 4-5 grammar continuum

**RI.5.7** Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question or to solve a problem efficiently.

**L.5.1** Demonstrate command of the conventions of standard English grammar and usage when writing and speaking; demonstrate proficiency within the 4-5 grammar continuum

#### Math:

**NC.3.OA.1** Use repeated addition, bar models, and arrays to find a total product when there are repeated equal groups

**NC.3.NF.1** Differentiate a fractional part from a whole

**NC.4.NF.3** Represent one half as one of two parts to make 1 whole

**NC.5.NF.1** Identify models of halves ( $\frac{1}{2}$ ,  $\frac{2}{2}$ ), fourths ( $\frac{1}{4}$ ,  $\frac{2}{4}$ ,  $\frac{3}{4}$ ,  $\frac{4}{4}$ ), thirds ( $\frac{1}{3}$ ,  $\frac{2}{3}$ ,  $\frac{3}{3}$ ) and tenths ( $\frac{1}{10}$ ,  $\frac{2}{10}$ ,  $\frac{3}{10}$ ,  $\frac{4}{10}$ ,  $\frac{5}{10}$ ,  $\frac{6}{10}$ ,  $\frac{7}{10}$ ,  $\frac{8}{10}$ ,  $\frac{9}{10}$ ,  $\frac{10}{10}$ )

#### NC Essential Standards

#### Science:

**3.L.2** Understand how plants survive in their environments. \*The distinct stages of a seed plant life cycle

**4.L.2** Understand food and the benefits of vitamins, minerals and exercise.

### Goal:

Students will review the life cycle of apples to secure concepts of the life of seed plants.



### Activity Length:

45 minutes



### Location:

Classroom

### Materials needed:

- *How Do Apples Grow?* by Betsy Maestro
- Apple Life Cycle handouts
- A large sheet of poster paper with tree outline
- Enough apple paper cutouts for each student
- Tape
- Writing utensils

# Apple Life Cycle

Read *How Do Apples Grow?* by Betsy Maestro

After finishing the book, pass out “Apple Life Cycle” handouts and ask students to follow along as you read the script. (Alternatively, students can practice reading and take turns reading the different steps of the life cycle.)

Before it grows into a plant, what do apples start out as? **Seeds.**

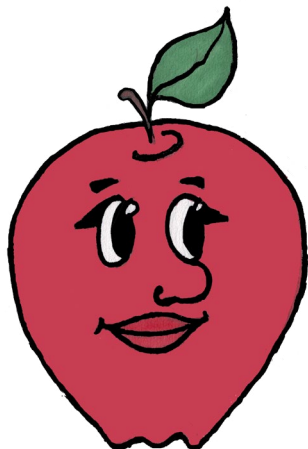
- What do apples need to grow? **Sun, soil, water, and air.**
- If we plant an apple seed in soil, give it water, after a few days it will start to grow **roots.**
- **Roots** provide a support system for the apple tree. They draw water up from the soil along with nutrients like carbohydrates and nitrogen to help the apple tree grow big and strong. **Roots** also keep saplings in the ground, and help them grow upright.

- After growing roots, the apple seed will “germinate”, meaning it sends up a **stem and leaves.** These are the first parts of the plant that we can see above ground.
- After a while, the sapling has grown into a large, leafy tree
- What are the main role of **leaves? Photosynthesis!** The leaves spread out wide and collect energy from the sun. The apple tree uses this energy to create food for itself.
- When the apple tree is ready to start growing fruit, it will grow small white or pink **flowers.** If (and only if!) the flowers are **pollinated**, an apple will grow from the flower! This is why bugs like bees, butterflies, moths, and even flies and wasps are important! Without them, we wouldn’t have food!
- Inside each apple are more seeds. Each one of the new seeds has the potential to create another apple tree, and begin the cycle all over again!

## Supply Chain

Watch the video “Apples Farm to Fork: Meet Bryan Howard”

<https://www.youtube.com/watch?v=6vtUiB6BvVU&t=319s>



Ask students to identify the different steps of the supply chain as seen in the video, arriving at the five main steps:

- Plant: The farmer had to plant the seeds or saplings
- Harvest: The farmer and his or her employees harvest the produce
- Transport: A driver had to drive them from the farm to the store, market, or processing facility
- Prepare: Someone (a processing facility, chef, family member) has to wash and prepare the food
- Eat: Finally, after all the work, YOU get to eat it!

# Harvest of the Month Moment!



Before diving into the lesson, introduce the featured produce!

If space, gather in a circle or around the poster. Feel free to use this space to share your own experiences with the harvest and celebrate what students know.

*The Harvest of the Month for OCTOBER is APPLES!*

*Apples grow on trees. A field of apple trees is called an orchard, but many people plant just one or two apple trees in their yards.*

*In North Carolina, apples are ready to harvest and eat in the fall.*

Ask students to find the harvest on the What's Growing On? Poster. If available, pass around the harvest and invite students to share observations (How does it feel, look, smell, sound? Does it remind you of another harvest we've done this year?).

Consider asking some warm-up questions for students:

*Have you tried apples? When did you try them?*

*How does your family like to prepare apples?*

*Do you have anything that you know about this harvest that you'd like to share?*

## What's Growing On?



*Today, we are talking about apples! What are some ways that we can eat apples? (Invite responses)*

*Examples: slices, whole, baked, apple sauce, apple cider, apple chips, apple juice, apple muffins, apple pie, apple salad.....this list goes on! Yes, lots of different ways to eat apples! Americans eat on average 45 pounds or 120 apples PER PERSON per year.*

[http://www.blountweb.com/apples/apple\\_facts.htm](http://www.blountweb.com/apples/apple_facts.htm)

*Explore apple facts with students. Let them know that they are going to get a chance to share their favorite apple fact, either from this list or another one that they know, with the class in the upcoming activity.*

## 2. Students Write & Share an Apple Fact

- Have a poster with a tree outline hanging on the wall, or else draw a tree on the board.
- Distribute an apple cut-out to each student and ask them to write a fact they learned about apples.

*Possible sentence starters:*

*Apples taste \_\_\_\_\_. Apples are \_\_\_\_\_.*

- Ask students to take turns reading their apple fact aloud, either to a partner or to the whole class, then have them come and post in on the board/poster.
- Together we decorate a tree with apples! You can hang the apple tree in your classroom, or take a picture of the finished board.

## 3. Snack

**MATH CONNECTION:** Before we enjoy our snack, we are going to do some math together to determine how many apple slices each person gets!

How many students do we have?

How many slices of each apple?

So how many slices of each does each student get?

Work out the problem together on the board or hand out scrap paper to students to try and calculate.

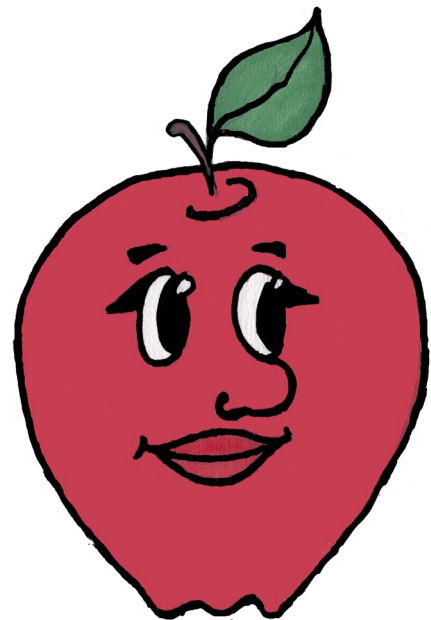
### Optional science extension

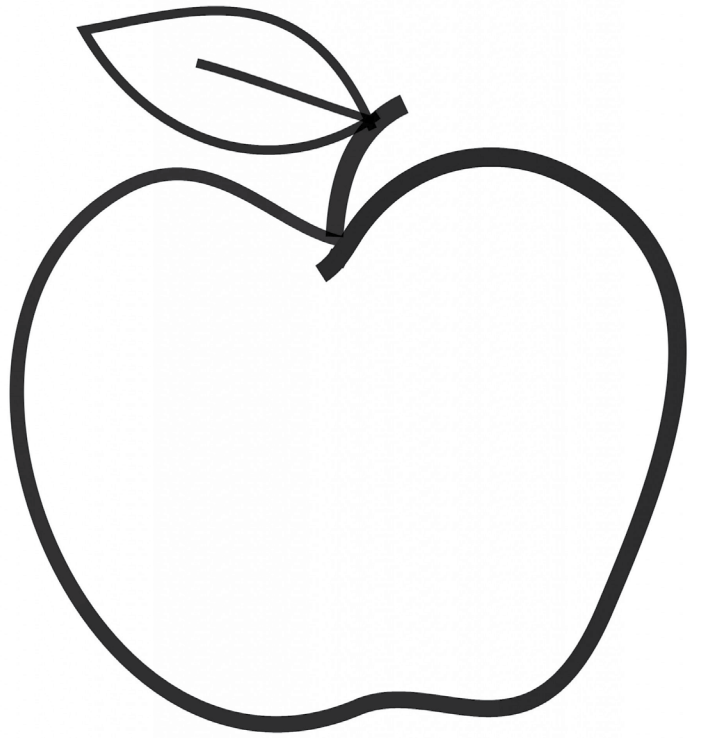
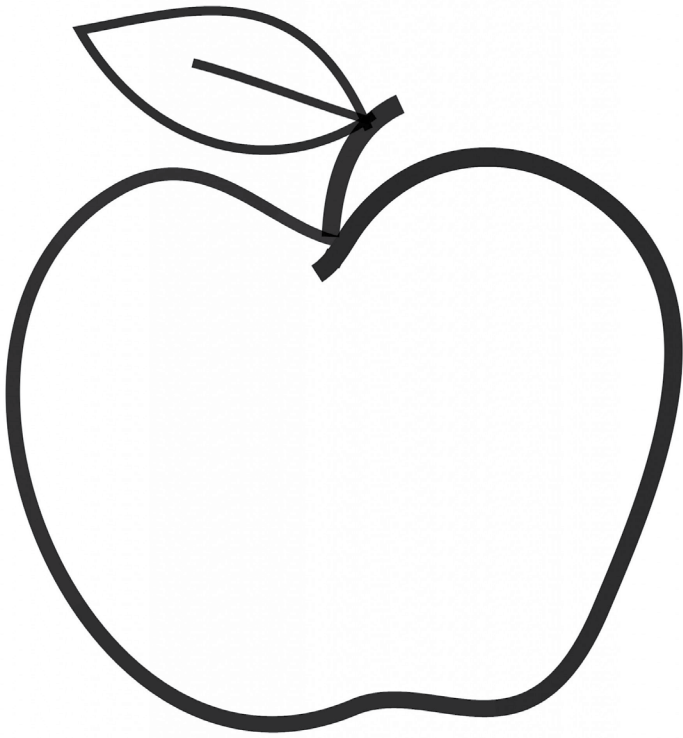
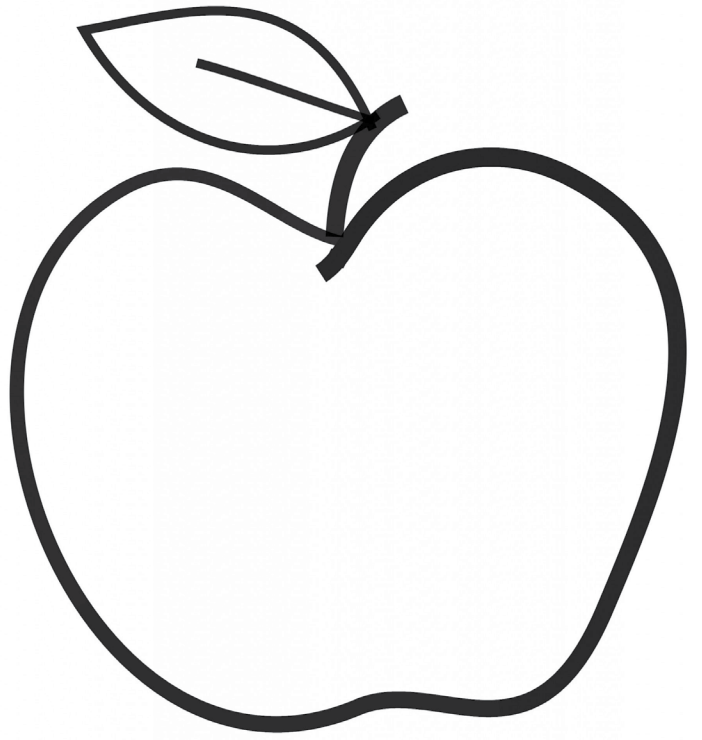
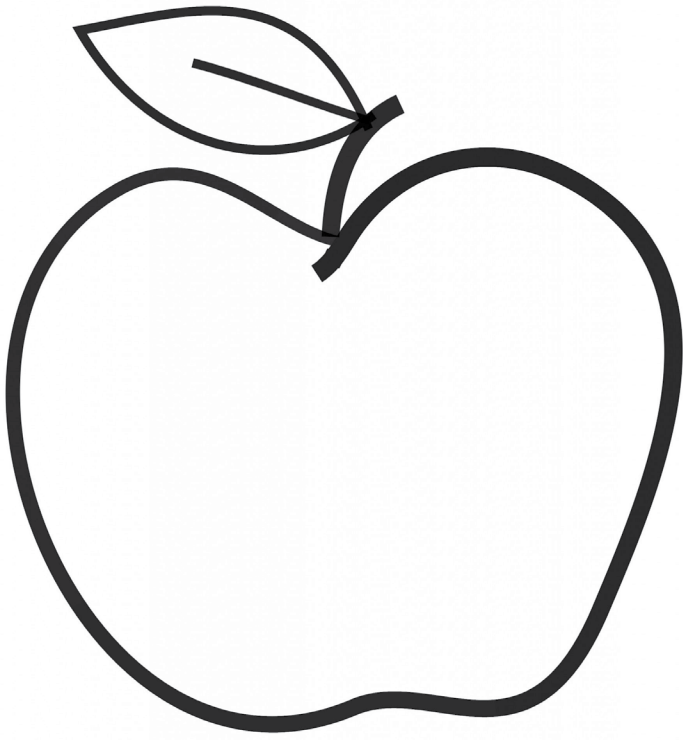
- Print a copy of blank apple plant life cycle worksheet for students to label OR
- Paper-plate life cycle activity

<http://www.science-sparks.com/2017/09/21/flowering-plant-life-cycle-plate-spinner/>

### Wash hands break!

Pass around slices of each variety of apple to each student. Have students vote by raising their hands or tally on board which apple they like best!





# Apple Life Cycle

