**Activity: The Apple Cycle**

*Activity Level: Basic*

Source: Adapted from Illinois Agriculture in the Classroom

### Purpose
Understand and model the apple life cycle and relate it to other agricultural plants.

### Example Topics It Supplements
Parts of plants; changes in living things

### Activity Snapshot
1. **Organize and Prepare Supplies**
2. **Read Background Information**
3. **Interest Approach**
4. **Conduct Activity**
   Students will illustrate the life cycle of the apple using a model.
5. **Ask follow up questions and make the connection to agriculture.**
   - How do all plants start?
   - What is the order of the plant life cycle?
   - What agricultural plants that we talked about also have the similar cycle?
   - What can we share with others about what we learned today?

### State Standards It Supports
- SS 0.3.3—Students will identify natural processes in their physical world.
- SC 2.3.1.c—Identify external parts of plants.
- SC 2.3.2.b—Describe how living things change as they grow.
- Science 2.3.4.a—Recognize seasonal changes in plants.

### Materials
- Suggested reading: *Apples* by Gail Gibbons
- Red paper plates—2 per student
- Construction paper in brown (seed), light green (small apple, tree), yellow (bee), white or pink (blossom)
- Brown or green yarn 8” long—5 pieces per student
- Tape
- Scissors
- Stapler
- Hole punch
- Apple chain template

### What’s the Connection to Agriculture?
The apple cycle shows how seeds are the start of fruits and food products. Just like apples, plants that farmers grow go through the same cycle. Corn, wheat, and soybeans are just a few things that Nebraska farmers grow and similarly, they start as seeds! These commodities get turned in to several products that we eat, wear, and use daily!
PROCEDURES:

1. Organize and Prepare Supplies  
   See “Materials” on cover page.

2. Background Information  
   A life cycle is the series of stages that an organism passes through during its lifetime. Specifically, 
   this lesson discusses the life cycle of a plant starting as a seed, growing into a tree, producing a 
   flower, pollination of the flower, development of a fruit, and the fruit containing a seed, thus 
   starting the cycle over again. Students will see the life cycle for plants being modeled through 
   illustration of an apple. Plants that farmers grow also have a similar life cycle. Plants that farmers 
   grow in Nebraska are corn, soybeans, wheat, dry edible beans, sugar beets, to name a few. These 
   plants are essential for use for food, fiber, and fuel!

3. Interest Approach  
   Have students brainstorm all the places they get food and clothes. Record on writing surface. 
   Expected responses: grocery store, convenience store, mall, online, etc.

   Discuss how these items that we eat or wear all start as something else, like plants. Farmers grow 
   the plants, harvest the fields, and then the grain gets turned in to other products. The plants go 
   through a similar lifecycle that we will model today with apples.

   Alternate extension of the interest approach: Read Apples by Gail Gibbons to students.

4. Conduct Activity  
   a) Cut out each item of the Apple Chain template out of construction paper: seed, tree, 
      blossom, bee, little green apple. Punch a hole on each side of the items you made with 
      construction paper. The brown seed only gets one hole punch.
   b) Glue two red paper plates together around 2/3 of the edge. Leave the other 1/3 open. Allow 
      time for it to dry. You can also skip the glue and staple the plates together depending on age 
      of student.
   c) Tape or staple a piece of yarn to the inside of the paper plates and extend the yarn out of the 
      opening.
   d) Add a stem and leaf to the red paper plates to make them look like an apple.
   e) Tie the little green apple to the yarn coming out of the apple. Tie the bee to the little green 
      apple. Tie the blossom to the bee. Tie the bee to the tree. Tie the tree to the seed. These 
      should all form a chain.
   f) Tuck the green apple, bee, blossom, tree, and seed into the apple. Starting with the seed, 
      slowly pull shapes out of the apple and tell the story of how the apples grow.
   g) Discuss how agricultural crops are plants that have a similar life cycle. Plants are grown by 
      farmers and those crops provide food, clothes, and fuel for us to use.

5. Ask Follow-Up Questions and Make the Connection to Agriculture.  
   - How do all plants start? 
     Seed
• What is the order of the plant life cycle?
  Seed grows to tree, tree grows a flower blossom, the flower gets pollinated represented here
  with a bee, the blooms starts growing into a small fruit represented here with a small green
  apple, and matures into a full-size apple containing seeds. The seeds from inside the fruit can
  be planted and the whole cycle starts again.

• What agricultural plants that we talked about also have the similar cycle?
  Corn, wheat, soybeans, dry edible beans are agricultural products grown in Nebraska.

• What can we share with others about what we learned today?
  The life cycle of a plant starts as a seed, grows into a tree, produces a flower, gets pollinated,
  develops a fruit, and the fruit contains a seed, which starts the cycle over again. Plants that
  farmers grow also have a similar life cycle. Plants that farmers grow in Nebraska are corn,
  soybeans, wheat, dry edible beans, sugar beets, to name a few. These plants are essential for
  use for food, fiber, and fuel!
Apple Chain

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