Cotton

*Lesson Plan for Grade 1, Science*

*Prepared by NAITC/Virginia Ag in the Classroom*

*Modified by Mississippi State University, School of Human Science*

*for Mississippi Farm Bureau Federation - AITC*

# OVERVIEW & PURPOSE

In this lesson students will create a model of the cotton life cycle.

# EDUCATION STANDARDS

**Mississippi College-and-Career Readiness Standards:**

L.1.1.4 Create a model which explains the function of each plant structure (roots, stem, leaves, petals, flowers, seeds.

ELA-SL.1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and text with peers and adults in small and larger groups.

**NALOs:**

T2.K-2 f Identify the types of plants and animals found on farms and compare with

plants and animals found in wild landscapes.

# OBJECTIVES

* Students will describe what a life cycle is
* Students will analyze how cotton grows

MATERIALS NEEDED

* [Cotton Life Cycle PowerPoint](https://drive.google.com/file/d/1uHpfFIiGrVAecnU4Vn-xZNdinbnYs8v4/view?usp=sharing)
* Household Items made out of cotton (1 each,T Shirt, jeans, towels, etc.)
* White paper plates (1.5 per student)
* Brown construction paper (2 pieces per student)
* Cotton balls (10 per student)
* [Cotton template](https://drive.google.com/file/d/1KGL60L4H9iEuOwOjbuasUKk9NAZETANV/view?usp=sharing), (1 per student)
* Scissors (1 set per student)
* Tape (1 per 2 students)
* Staplers (1 per class)
* Glue (1 stick per student)
* Crayons/markers (1 set per student)

# Lesson Set Up:

1. Set up supplies for students to access for activity.
2. Layout household cotton items.
3. Set Up Cotton Life Cycle PowerPoint
4. Create cotton life cycle activity as an example for the class.

# Ag Facts:

* Cotton is a slow-growing plant that requires at least 160 frost-free days to grow.
* Texas produces more cotton than any other state in the United States.
* Mississippi was 3rd in cotton production in 2019.

# Background Information for Teacher:

After sprouting, the cotton first develops little leaves called cotyledons. Next, buds, or squares, will appear that will eventually open to reveal blossoms. The blossoms start out as white and then darken to yellow, pink and eventually to red. When the blossoms fall off they leave cotton balls. The boll is a small green football-shaped pod with the cotton and seeds inside. The ball will ripen and turn brown when it is ready to pop open to reveal the cotton fiber. When the polls open in the fall, the cotton is ready to be harvested. Cotton is harvested using special machinery to cut it from the field and is then stacked and stored in large rectangular mounds called modules. Next, it is sent to the gin to pull the fiber from the seed. After being ginned, the fiber is called lint and is pressed into large bales about the size of a refrigerator that weigh around 480 pounds. The seeds can be sold and used for animal feed, paper, plastics, or oils.

# LEARNING PROCEDURES

Interest Approach:

# Hold up the household items made out of cotton to your students.

Ask the students:

**“What are these items made out of?”** Anticipated Answer: Fabric

**“ These items are all made from cotton! Do you know how or where cotton comes from?”** Anticipated Answer: The store

**“Cotton is a plant just like corn or wheat that we make bread out of. Farmers have to plant and grow cotton for us to use to make clothes and other items out of.”**

**“Today, we are going to be looking at the life cycle and stages of cotton and make them”**

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**(Flower should be pink)**

**Procedures**

1. Go through the life cycle and stages of cotton powerpoint. Talk through each slide and explain each cycle for the students.
2. Next, Tell students they will be making a model of the cotton plant life cycle.
3. Hand out the templates, scissors and crayons.
4. Tell the students to label, color, and cut out the five patterns. Seed- brown; Leaf- green; Bud- green; Flower- pink; Boll- green.
5. Hand out one and a half paper plates to each student.
6. Tell the students to put the plates together, with the half plate forming a pocket on the back of the whole plate.
7. Hand out string to each student.
8. Ask the students to sequence their cotton parts on the string in the following order: seed, leaf, bud, flower, ball. Label them 1st, 2nd, 3rd, 4th, and 5th and tape to the yarn.
9. Attach this yarn to the back of the paper plates. The seed should be furthest from the plates so that it is the first piece taken out of the pocket.
10. Ask the students to cut out several triangles from brown construction paper.
11. Tell the students to glue or staple the bottom of the triangles along the bottom edge of the paper plate.
12. Tell the students to fold back the top half of the triangles so they stick out from the plate.
13. Give each student a handful of cotton balls.
14. Ask the students to glue the cotton balls to the plate, directly above the folded back triangles.
15. Tell the students that this depicts what a cotton ball looks like after it has opened.
16. After all the cotton cycle models are completed, tell the students to place all the cotton parts in the pocket
17. Demonstrate to the students how this model shows the life cycle of a cotton plant:

a. Pull out the seed part and tell the students that a cotton plant begins as a seed.

b. Pull out the attached part, the leaf, and tell the students that the cotton plant then develops leaves.

c. Pull out the attached part, the bud, and tell the students that the cotton plant then develops buds.

d. Pull out the attached part, the flower, and tell the students that the buds develop into flowers.

e. Pull out the last part, ball, and tell the students that the flowers die and bolls are formed.

f. Point to the cotton boll on the front of the plate and tell the students that the bolls

open up and the cotton can now be seen.

17. Ask the students to demonstrate the cotton life cycle to a partner using their newly made models.

**Concept Elaboration and Evaluation**

* Ask the students the following review questions:

**“What are the parts of the cotton life cycle from beginning to end?”**

Answer:Seed- brown; Leaf- green; Bud- green; Flower- pink; Boll- green

**“Why is cotton important?”**

Answer: Cotton is important because it supplies us with fiber for clothing and other goods we use and buy

# Additional Learning Procedures

To help students review and elaborate more about cotton use the [“Meaning Prediction through Think-Pair-Share”](https://drive.google.com/file/d/180wSLiJb9I7kUt_Y9uvTIicjpMdr8g1y/view?usp=sharing) while tasking students with discussion and review questions.

Additional learning opportunities to bring new ways to discuss cotton in the classroom by reading aloud [“From Cotton to T-Shirt” By: Avery Toolen](https://www.amazon.com/Cotton-T-Shirt-Where-Does-Come/dp/164527974X/ref=sr_1_13?crid=3KSRWTOYAUKL3&keywords=cotton+book+for+children&qid=1692804559&s=books&sprefix=cotton+book+for+children%2Cstripbooks%2C107&sr=1-13).

Additional Texts to Include:

[The Adventures of Happy Shirt](https://www.agfoundation.org/recommended-pubs/the-adventures-of-happy-shrt)

[From Cotton to T-Shirt](https://www.agfoundation.org/recommended-pubs/from-cotton-to-t-shirt)

[From Plant to Blue Jeans](https://www.agfoundation.org/recommended-pubs/from-plant-to-blue-jeans)



Source: <https://agclassroom.org/va/>

*The MS Farm Bureau Women’s Committee has additional resources to help aid you in this lesson such as a cotton gin, please contact Dedra Luke at 601-977-4169 to learn more!*

*For more information and additional lessons visit*

*https://msfb.org/ag-in-the-classroom/lesson-plans/.*