

Grade

Preschool - Kindergarten, 4-6 years old

Time

- One 20-30-minute lesson
- 15-20-minute exercise to create the booklet provided on the worksheet

Purpose

Students will gain an understanding of how cotton is grown and used to make products for human use. Students should be able to recall the steps of how cotton is grown and how cotton can make a t-shirt.

Georgia Standards of Excellence (GSE) & Georgia Early Learning and Development Standards (GELDS)

Pre-kindergarten (GELDS)

- CD-SS5.4a Recognizes and describes a sequence of events with accuracy.
 - tells you that dinosaurs lived "a long, lime time ago" and that now "they are extinct"
 - o comments that he/she wants to be a firefighter when he/she grows up
 - o says, "I will learn to drive a car when I am big like my sister."
- CD-SS5.4b Differentiates between past, present, and future.
 - o says, "I learned how to ride a bike this summer, so now I can."
 - tells the teacher, "We forgot to water the seeds yesterday. Does that mean they will not grow?"
 - after seeing a small group use playdough, the day before asks, "Is this our day to use playdough at small group?"
 - asks, "We had a lot of fun reading Brown Bear, Brown Bear. Can we read it again?"



Kindergarten (GSE)

- SSKH3: Correctly use words and phrases related to chronology and time
 - a. Now, long ago
 - b. Before, after
 - c. Today, tomorrow, yesterday
 - d. First, last, next
 - e. Day, week, month, year
 - f. Past, present, future
- SSKE1: Describe the work that people do such as: police officer, firefighter, soldier, mail carrier, farmer, doctor, teacher, etc.

Materials

- My Family's Cotton Farm book (hard copies or online)
- PowerPoint: Cotton to T-shirt
- "How Cotton is Grown" booklet worksheet
- Scissors and glue

Resources

- Georgia Farm Bureau: https://www.gfb.org/
- Georgia Cotton Commission: https://georgiacottoncommission.org/
- University of Georgia: Cotton | UGA Cooperative Extension

Vocabulary

Farming: The growth of plants and animals for human use.

Cotton: Soft, fluffy, staple fiber that grows in a boll.

Crop: A cultivated plant is grown for human use on a large scale.

Bale: A bundle of a crop tightly wrapped and bound with cords or plastic.

Cotton Gin: A machine used to separate cotton from its seeds.

Spinning: The action of the process of converting fibers into thread or yarn.

Thread: A long thin strand of cotton or other fibers used in sewing or weaving.

Dyeing: To add color or to change the color of something by soaking it with dye.

Weaving: The craft or action of forming fabric by interlacing threads.

Fabric: Cloth or other material produced by weaving or knitting fibers.





Background

Once the cotton is harvested it is sent to the gin where the seeds and other plant material are removed. Every part of the plant is used! The longer white fibers, called lint, is baled and usually shipped to textile factories. The 'trash' (usually small seed, leftover plant material) is made into organic fertilizer or animal feed. The 'mote' refers to the small fibers connected to the seeds. This mote is baled and many times used for furniture stuffing. Linters refer to re-ginned lint (small fibers) and can be used for computers!

The lint bales that are sent to the textile factories are usually spun into thread or yarn. This is done by continually twisting the fibers, which gives the thread strength. After dyeing the thread, weaving is the next step. This step is done by large machines with thousands of needles that can quickly weave the thread, creating fabric. Bolts of fabric are then sent to stores or other factories which design/make the clothes.

Procedures

- 1. Read My Family's Cotton Farm to the students.
- 2. Lead discussions about sequencing and chronology appropriate for the grade level, providing examples from the book.
 - a. What does the farmer have to before planting a cotton seed? Fertilize the soil
 - b. The cotton used to make this shirt came from where? A cotton plant/farm
 - What happens when the cotton is white and fluffy? It is picked or harvested
 - d. What is the last thing that happens to cotton after it is picked? Rolled into a bale and moved to the cotton gin.
- A PowerPoint is available to assist with further sequencing/chronological discussions. This PowerPoint focuses on the steps it takes to make cotton (starting at the gin) into a t-shirt.
- 4. After discussions, students create a "How Cotton is Grown" booklet. Model or explain the steps in creating the booklet. Students should be able to paste the steps to growing cotton in order. Use My Family's Cotton Farm book for reference.
 - a. Students use scissors to cut the paper in half along the dotted line.
 - b. Then instruct students to cut on the dotted lines around the pictures.
 - c. Students decide the sequence of pictures, gluing the picture to the proper numbered box.





- d. Help students fold their newly placed pictures into a book. It's folded like an accordion.
 - i. Begin by folding the title page towards the back then folding the first picture to the inside, repeat with the rest of the pictures

Extensions

- Reach out to the local Farm Bureau and have a farmer visit the class.
- Plant seeds in the classroom or create a garden and document how the seeds grow.
- Try a weaving project! Use paper strips to show students the basics of weaving.

Other Reading Connections

- From Cotton to a T-Shirt by Robin Nelson
- Harvesting Equipment by Therese M. Shea
- Cotton Picker by Samantha Bell

References

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