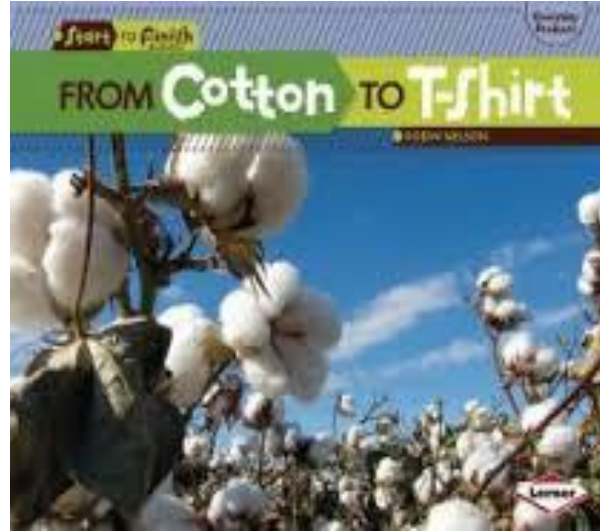


November 2014 Book of the Month
From Cotton to T-Shirt
 By: Robin Nelson

From *Cotton to T-Shirt* shows how T-shirts are made and includes several stages in the manufacturing process, such as close-ups of thread making, mechanical weaving, dyeing, and cutting. With large, vivid photographs that correspond to simple, short sentences, Start to Finish reveals the life cycles and processes behind the common, everyday things that beginning readers see in the world around them.



Vocabulary:

Bolls: round parts of a cotton plant that holds the cotton and seeds.

Cotton Gin: machine that pulls seeds out of cotton.

Dyed: to make something a different color.

Knitting Machine: machine that makes thread into cloth.

Thread: long, thin rope made of cotton.

Cotton Facts:

- U.S. textile mills presently convert over half of the cotton they use into clothing.
- The majority of cotton is used for men and boys' clothing, with jeans, underwear, and shirts topping the list.
- If all of the cotton produced annually in the U.S. were used to make one product, such as blue jeans, it would make 5 billion pairs.
- One bale of cotton can produce 1,217 men's t-shirts or 313,600 one-hundred dollar (\$100) bills.
- Cotton's home uses range from bedspreads to window shades. It is by far the dominant fiber in towels and washcloths. Cotton is also popular in sheets and pillowcases.

- Industrial products containing cotton include wall coverings, book bindings, and zipper tapes. The biggest cotton users in the category are manufacturers of medical supplies, industrial thread, and tarpaulins.
- Cotton is a food crop. Almost 200 million gallons of cottonseed oil are used in food products such as margarine and salad dressing. Cottonseed and cottonseed meal are used in feed for livestock and poultry. And even products such as toothpaste, ice cream, and the paper money used to buy them contain by-products of the cotton seed.
- The Cotton Belt covers the southern half of the United States, reaching from Virginia to California. Texas is the top cotton-producing state, harvesting about one-third of the crop each year.

Cotton Investigations

Who's Wearing Cotton?

Have students look at each other's shirt tags and count how many are wearing cotton shirts. Show students other things made from cotton such as cotton balls, shoestrings,

Q-Tips etc. Have students name other products made from cotton. Create a graph showing how many students are wearing cotton shirts. Students can also work in groups to create posters (cut pictures from magazines/draw pictures) showing things made from cotton.

A T-Shirts Life Story

A basic cotton t-shirt doesn't seem so basic when you trace its life history. Read the article about making t-shirts that can be found at <http://www.nrdc.org/living/stuff/t-shirt-life-story.asp>.

Have students trace a pattern of a large t-shirt on construction paper. Have students design his/her own original cotton t-shirt and decorate the front. On the back, have students write the process of how t-shirts are made.

Cotton Life Cycle

This activity focuses on the structural parts of a **cotton plant** and the process of gathering cotton from the fields to manufacturing clothing products. Cotton is planted in **rows** during the spring; about two months later, **flowers** develop from the **buds**. When the flowers die and fall off, they leave behind **pods** called **boll**s. After the bolls ripen and break open, the cotton **fibers** emerge. After the cotton is picked, it goes through a long process of **cleaning** and **sewing** before it can be used to make blue jeans. Have students recreate the life cycle of cotton.

Have students create a Cotton Life Cycle chain. Detailed instructions

on how to make this cotton life cycle can be found at:

https://agintheclass.org/Portals/0/LessonFiles/cotton_life_cycle.pdf



Cotton Matters

Have students tie dye cotton to determine how closed and open containers impact water evaporation. Complete instructions can be found at:

http://www.ncagintheclassroom.com/Portals/1/pdf/curricula/g2_lesson17.pdf

Cotton is Soft

Bring in real cotton plants for students to explore. Have students work in groups to identify all the parts of the cotton plant. Have students separate the Calyx of the flower, the cotton balls, extract the cottonseeds and the remaining cotton from the plant. Pass out cotton balls from the store and have students compare and contrast the two. Discuss the similarities and differences. The following website has excellent pictures showing the parts of the cotton plant.

<https://thesoilhuggersjourney.wordpress.com/2014/08/12/pick-a-plant-day-our-cotton-bush/>

Cotton Harvest Video

Show your students how cotton is harvested and rolled in bales by watching this animated video: <https://www.youtube.com/watch?v=yHMJf0DnHhY>

For many more ideas and activities visit NC Farm Bureau's Ag in the Classroom website.

<http://www.ncagintheclassroom.com/>

Sources:

<http://www.agday.org/tc/tc-funfacts.html>

<http://www.cottonsjourney.com/storyofcotton/page3.asp>

https://agintheclass.org/Portals/0/LessonFiles/cotton_life_cycle.pdf