

# George Washington Carver's Attention to Invention

Donna Shafer-Riha, WVPT

## Overview

**Topic:** George Washington Carver, Nutrition, and Inventors. First graders will discuss George Washington Carver as a very creative inventor who overcame obstacles to succeed. They will reinforce their discussions by creating a class book and/or slide show, then cement the basic facts into their memories by singing a song about Carver. Their taste buds will also be involved by tasting raw sweet potatoes

## Time Allotment

Two 30-minute sessions, one hour session

## Media Components

*U.S.—That's Us!* #6, George Washington Carver  
*KidPix* on computers in a lab for each student or on one classroom computer  
Overhead projector

## Learning Objectives and Standards

The student will be able to:

- identify some of the contributions that George Washington Carver made to science, society, and the Southern economy (Va. SOL History 1.2)
- read, word process, and illustrate a sentence of a larger story about George Washington Carver to create a class book and/or slide show (Va. SOL Visual Arts 1.13, English 1.11, 1.12)
- recognize and explain why sweet potatoes are healthy food choices (Va. SOL Health K.1, 1.2)
- learn and sing a song about George Washington Carver's uses of the peanut (Va. SOL Music K.1, K.4, K.6, K.11, K.12, 1.1, 1.2, 1.3, 1.4, 1.11, 1.12)

## Materials

### First session

- 1 parent letter for supplies and assistance (one for each student)
- 1 sweet potato and a peanut (optional)
- 1 age-appropriate book about George Washington Carver

### Second session

- 1 George Washington Carver story cut into sentences (attachment)
- 1 large brown grocery bag or postal wrapping paper
- 1 black marker
- 1 foot of baling twine, raffia, or brown yarn

### Third session

- musical instruments (optional)
- overhead of song words on a transparency (attachment)
- peeled, sliced sweet potatoes
- "peanut butter" labels (optional)

## Teacher Preparation

For the first activity, cue the tape to the appropriate spot for the George Washington Carver biography. Have a book ready about George Washington Carver.



er. For the second session, have the story cut into sentences to distribute. Also, have the brown paper bag cover ready and twine, yarn, or raffia. If creating a slide show, decide how you will save all of the student pictures in one spot to create one slide show. For the third session, have the tape cued to the song. You may also have musical instruments ready and labels for the students so they can become jars of peanut butter like the puppet.

### Introductory Activity

(Note: Stop for discussion wherever you feel it is appropriate during this section and the next.)

1. Tell the students: Last night, I was on the Internet, looking for information about George Washington. Do you remember who he was? I kept finding the name George Washington Carver. Have you ever heard of him? I discovered that George Washington Carver was born over a hundred years ago. He was born a slave in the South. Let's look on the map and see where the South is in the U.S.

2. Can anyone tell me what a slave was? Why would someone want to own another person? How would you have felt if you were a slave?

3. I also found out that he did some things with peanuts and sweet potatoes that no one had ever done before. (If you have them, show them now to students.) Do you like peanuts and sweet potatoes? What kind of things do you do with them? Let's look at these now and try to come up with some different things that we might invent from them.

#### Time Cues

To synchronize your VCR with the time cues that are included with this lesson, zero/reset your time counter at the very beginning of the program, before the introduction and titles. Time cues are expressed as "minutes:seconds;" for example, 3:15 means three minutes and fifteen seconds.

#### Pause vs. Stop

When using a video interactively with students, teachers need to decide when to use **PAUSE** and when to use **STOP**. **PAUSE** the video when the anticipated discussion or activity will take less than two minutes. **STOP** for longer periods. Pausing for too long at one time can cause video heads on the VCR to become clogged which may require cleaning to correct.

### Focus for Media Interaction

1. Today you will find out who George Washington Carver was, and I think you will find him very interesting. Please listen to this video and when it is over tell me some facts that you hear about him.

2. **START** at 3:05 ("Rollo, a little help please.") **STOP** at 4:01 ("... found hundreds of uses for the crops.")

3. **ASK**: What did you hear about George Washington Carver? Write their responses on the board. What kind of life do you think he had? What did you hear that made you think that? Do you think he sometimes felt like giving up? Why or why not? What would you have done?

4. As well as being very smart, he must have had a lot of imagination to do so many things. He was an inventor. What is an inventor? Why is it important that an inventor has a lot of imagination? Are you inventors? (If yes, ask what they have invented. If no, probe to see if they are inventors without knowing it.)

### Learning Activities

1. I'm going to read this book about George Washington Carver to you, and I want you to listen to see if you hear some of the same facts that were in the video. I also want you to listen to see if you hear different facts than the ones in the video. I will let you tell me and add to the list after I finish the story. (Draw a line to the right of the list you

already made. As they give you facts from the book, write them on the right side. If they hear a fact repeated from the video, check it on the left side.)

2. Now that the students are acquainted with the basic facts of George Washington Carver's life, you may want to initiate a discussion and definition of racism and prejudice and guide them to get them to tell you how George Washington Carver responded to those barriers in his life. You might compare disliking someone based on skin color to disliking someone because of eye or hair color, etc.

### Session two

1. Give each student one sentence from the George Washington Carver story. In KidPix, ask the child to word process the sentence and their name and illustrate what they have written.

2. Print the pictures on a color printer, and cut out the illustration in the middle of the page.

3. The teacher or one of the students can create a cover for the book from a crumpled brown paper bag, drawing the lines of the peanut shell and title with black marker. Bind the book by punching holes and tying it together with baling twine, brown yarn, or raffia.

## **Culminating Activities**

### Session Three

Distribute different instruments to the students (such as moroccos, triangle, etc.), if you have them. Ask students if some of them would like to be jars of peanut butter. Give them a label if they do.

SAY: I have a video with two puppets singing a song about some of the things that George Washington Carver discovered can be made from peanuts. We are going to learn that song so that we can remember some of his inventions. I want you to listen carefully to the song the first time. Then I will put the words on the wall with an overhead projector and read the words to you line by line and ask you to repeat them. Then we will sing along with the video. We will all have to pretend that we are jars of peanut butter like the puppet. When we have

learned it well enough, we will not use the video. We will sing and dance and play our instruments. **START** at 5:10 ("Rollo, a little help."). **STOP** at 6:18 (after "Hurray! Hurray!").

End with a snack of sliced raw sweet potatoes. SAY: Many of you have probably eaten sweet potatoes, maybe with brown sugar or orange juice or marshmallows baked on top. But have you ever eaten them raw? Why might it be a better choice to eat them raw instead of baked or cooked? Discuss.

## **Assessment**

Assessment will be based on participation and production of a final product (class book/slide show). Grades will be either satisfactory or unsatisfactory.

## **Adaptations for Special Education Students**

1. Felt board figures for the first session to tell the story

2. Using puppets. These can be created from paper plates, using brown paper bags, or copying, cutting, and pasting pictures of Carver onto cardboard and mounting them onto Popsicle sticks. The other characters in the story can be made from magazine pictures.

3. Using a heavy-duty needle and twine, make peanut necklaces for them to touch and hold. Allow them to touch the sweet potatoes.

4. Take digital pictures or use a webcam while the class has each session. If taking pictures, print them and let the student keep them as a reminder of the lesson.

5. No adaptations will be needed for the musical session, but the class singing could be videotaped or recorded for the student to listen to at a later time.

6. Running the slideshow (if one is created from the story pages) in a loop.

## Community Connections

Visit a local farm or science museum. Take a field trip to a grocery store. Begin a recycling project and call it "The George Washington Carver Project." Interview local business leaders and ask them what kind of childhood difficulties they had to overcome to succeed. Interview a farmer.

## Cross-Curricular Extensions

1. Several ideas (from [www.graceproducts.com/carver/activities.html](http://www.graceproducts.com/carver/activities.html)) are:

- Discuss the peanut plant and life cycle. Grow a peanut plant and harvest. Use various types of soils.
- Sort foods into different food groups.
- Using recipes and labels, students can learn about the amount of fat, protein, etc., in a particular item. Students can visit web sites for their favorite fast food restaurants and learn this information about their favorite foods. The information could be tabulated in a spreadsheet.
- Dr. Carver loved music. Students can listen to music and draw pictures to illustrate what they hear. They might also use magazines and cut and paste pictures of instruments. They might also list adjectives of which the music makes them think.

2. Reading list:

- *George Washington Carver; What Do You See?* By Janet and Geoff Benge (ages 9-12)
- *Carver: A Life in Poems* by Marilyn Nelson (young adult)
- *George Washington Carver: Man's Slave Becomes God's Scientist* by David Collins and Joe Van Severen (ages 9-12)
- *A Weed Is a Flower* by Aliko (ages 4-8)
- *The Story of George Washington Carver* by Eva Moore (ages 9-12)
- *A Picture Book of George Washington Carver* by David Adler (ages 9-12)
- *A Pocketful of Goobers: A Story About George Washington Carver* by Barbara Mitchell (ages 4-8)
- *I Met a Great Man* by Vivian W. Owens (ages 9-12)

## About the Author

### Donna Shafer-Riha

Donna Shafer-Riha currently teaches technology to grades K-5 at W. W. Robinson Elementary School in Woodstock, Virginia. After earning a B.A. in history at Mary Washington College and an M.A. in English at James Madison University, she taught English as an adjunct at Lord Fairfax Community College so that she could stay home with her daughter Ashley until she began school. During that time, Shafer-Riha also taught Advanced Placement U.S. history at a local high school, as well as the history and literature of Tudor England for the county's Gifted and Talented program. In 1997 she left LFCC to teach English at JMU and soon moved into the Honors Program as an administrative assistant. While in the HP, she also taught an Honors seminar on Willa Cather and published an article on Cather in the Willa Cather Pioneer Memorial Foundation Newsletter. Her hobbies are reading, writing, crafting, playing the piano, and historical interpretation and costuming. She has also been teaching Sunday School to all ages since she was sixteen. Her complete obsession with history led to her and her daughter's becoming extras in the movie *Gods and Generals* (release date winter 2002). When they aren't home, the Rihas can be found in some historically significant spot.

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## **George Washington Carver**

**George Washington Carver was born in 1864. His mother was a slave.**

**When he was a baby, some bad men stole his mother and him.**

**Moses Carver sent someone to find them.**

**They could only find the baby George.**

**Moses and Susan Carver raised George and his brother Jim.**

**George was sick a lot.**

**George wanted to learn.**

**George could not go to school because his skin was black.**

**George found schools where he could go.**

**George went to college.**

**George liked art. He also liked science.**

**People called him "the plant doctor."**

**People planted a lot of cotton.**

**Cotton made the ground poor and sick.**

**George said to plant peanuts and other plants.**

**He found over 300 uses for the peanut.**

**He also found many uses for the sweet potato.**

**He never wasted anything. He recycled.**

**George liked to teach. He loved his students.**

**Sometimes, people were mean because he was black. He was never mean back to them.**

**George Washington Carver was a special person.**

(This song is sung by the peanut butter, so the students will need to pretend that they are peanut butter.)

**Song from U.S.: That's Us! #6: George Washington Carver**

**Words by John Burstein**  
**Music by Christian Staudt**

*The list of his inventions is, well, in a word fantastic:  
Shaving cream, laundry soap, rubber, paint, and plastic,  
Linoleum and mayonnaise, paper and shampoo,  
Polish for shining metal bright and polish to shine your shoes.*

*From the peanut, oh, so small,  
Thanks to George we have them all.*

*There's chili sauce and buttermilk,  
Axle grease and ink.  
The list goes on and on.  
It's quite amazing, don't you think?*

*From the peanut, oh, so small,  
Thanks to George we have them all.*

*More than three hundred things,  
Why, it makes my poor heart flutter  
Just to think I'm on that list of things—hurray for peanut butter!*

*Hurray! Hurray!*