



Figure 1 Watercolor of George Washington Carver, by Paula Giltner

George Washington Carver - The Artist Third and Fourth Grade Curriculum

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Contact the Park

Telephone: 417-325-4151
Email the park rangers: gwca_interpretation@nps.gov
See the park website: www.nps.gov/gwca

Write or visit: George Washington Carver National Monument
5646 Carver Road, Diamond, MO 64840

Park rangers are ready to help you teach your students about George Washington Carver. Don’t miss out on these valuable resources for your classroom. Expose your students to the challenging, hands-on activities created for you by an area art teacher. The visual and manipulative activities are tied to social studies standards. They are designed to give your students an unforgettable learning experience.

Did You Know?

George Washington Carver National Monument has a variety of resources available for teachers to encourage students to explore the life of George Washington Carver! Choose from the following list and contact the park for more information.

Art & Essay - for 3rd and 4th graders! What a great way to cap off this unit! Participate in the annual George Washington Carver National Monument Art & Essay Contest. Students create original works of art or write essays based on a theme Prizes are awarded and entries are displayed in the park visitor center.

Field Trip - There is no better way to reinforce the concepts studied in these art lessons than a field trip to George Washington Carver National Monument! Research shows that students who participate in place-based education programs retain more information over a longer period of time. The “Carver, the Artist” field trip is available for classes that have utilized this curriculum. Call today and reserve your program and enjoy a special art activity.

Virtual Visit – For those who are unable to visit the park, schedule a distance learning lesson. Live, interactive lessons with park rangers will be an exciting highlight of your unit. Artifacts such as Carver’s artwork will be available for students to view.

Traveling Trunk – Filled with books, posters, films, and other education materials, the George Washington Carver Traveling Trunk will supplement your study of this important African American and native son of Missouri.

Art Vocabulary Words

Aesthetics - the branch of philosophy that deals with the nature and value of art

Analogous - colors next to each other on the color wheel that have a common hue

Background - the part of an artwork farthest away from the viewer and closest to the horizon line

Balance - principle of design that deals with arranging visual elements so that a composition has equal visual weight on each side of an imaginary line

Collage - from the French word 'coller' that means 'to paste.' A collage manner, resulting in high and low surfaces which hold ink differently during printing

Color - element of art derived from reflected light. Color has three properties: hue, value, and intensity

Complementary Colors - any two colors opposite each other on the color wheel (example: red - green, blue - orange, yellow - violet)

Composition - the arrangement of the elements and/or objects in an artwork; the way principles of art are used to organize elements

Design - a visual plan, organization, or arrangement of elements in a work of art

Focal Point - area of an artwork that attracts the attention first

Foreground - the part of an artwork closest to the viewer and usually positioned at the bottom of the artwork

Formal Balance - two sides of a composition are identical; also called symmetrical balance

Landscape - a picture of the outside, with the landforms being the most important part

Monochromatic - a color scheme using tints and shades of one color

Negative Space - empty spaces surrounding shapes and forms

Organic Shapes - a fluid shape having none of the angularity associated with geometric shapes; often associated with objects in nature

Pattern - a choice of lines, colors and/or shapes repeated over and over in a planned way

Positive Space - area of artwork that is the primary subject or object

Relief Sculpture - type of sculpture in which forms project from a flat background

Shade - the dark value of color made by mixing black with a color; the opposite of tint

Simulated Texture - texture that is created through careful and methodical imitation of actual and natural textures

Tint - light value of a color made by mixing white with color; opposite of shade

Weaving - interlacing two sets of parallel threads; decorative art made by interlocking one material into other materials

Teacher Resource for Lesson: Yucca and Cactus

The first great highlight of George Washington Carver's artistic aspirations was achieved in 1893 at the Chicago World's Fair. Carver's painting, *Yucca and Cactus*, won Honorable Mention. This was quite ironic because in 1891 Carver had decided to put his career in art behind him, at least temporarily. His art teacher, Miss Etta Budd, at Simpson College in Winterset, Iowa encouraged him to pursue botany after discovering his love of plants. Miss Budd, like so many in Carver's past, recognized his ambition, talent, and intelligence. It did not take long for her to discover that "painting was in him" and "was natural for him." She doubted that an African American man could make a living as an artist in that era. Etta Budd suggested that he enroll at Iowa State College, the agricultural college at Ames, Iowa where her father, J.L. Budd was a professor of horticulture.

Simpson College was an ideal place for George Washington Carver to resume his quest for an education. His studies included grammar, arithmetic, art, essay writing, etymology, voice, and piano. It was a good fit for him because he was not only accepted but respected. "They made me believe I was a real human being," he noted.

Carver was accustomed to working hard to earn money for his living and educational expenses. He provided laundry service for fellow students, who spent time visiting with him while dropping off clothes. Students even provided him with much needed furniture and occasionally, theater tickets. He later recalled that when he had paid his college fees, he had only ten cents remaining with which he bought corn meal and suet for food.

Carver loved his work as an artist and was reluctant to put it behind him. He had already begun to believe that his talents were meant to be used in the elevation of those he called "my people." By becoming a trained agriculturist, he could obviously be of tremendous service, even if he made agriculture only a temporary career. When Carver left for Ames in 1891, he had no idea what lay ahead. He did not realize that his career at Iowa State would soon bring an end to his restless wandering.

When asked by James K. Wilson, then Dean of Agriculture, "George, why not devote a portion of your time to painting?" he replied, "Because with a knowledge of agriculture I can be of greater service to my race." Dr. Wilson, who later served as Secretary of Agriculture under Presidents McKinley, Theodore Roosevelt, and

Taft, never forgot this unselfish and significant decision. However, Carver's insatiable desire to paint remained strong.

In December of 1892, an exhibit of the paintings of Iowa artists was held in Cedar Rapids. A group of students bought George Washington Carver a new suit and a train ticket to Cedar Rapids. Carver's painting, *Yucca and Cactus*, featuring the *yucca gloriosa* plant, was selected to represent Iowa at the World's Columbian Exposition in Chicago in 1893.

Upon his graduation in 1894 and appointment as assistant botanist, George Washington Carver wrote to a friend, "This new position will require two years of postgraduate work and I hope to include in my studies a course at the Chicago Academy of Arts." This plan never materialized.

Yucca and Cactus Lesson Plan

Grade Level: Third and Fourth

Missouri Learning Standards Visual Arts:

3.VA.1.A; 3.VA.5.A; 3.VA.7.A

4.VA.2.A; 4.VA.5.A; 4.VA.8.A; 4.VA.11.A

Missouri Learning Standards Social Studies:

3.H.3.B.b; 3.H.3.C.a; 3.EG.5.D; 3.RI.6/E

4.EG.5.D; 4.EG.5.F

National Visual Arts Standards – Media Arts:

Pr6.1.3; Pr8.1.3

Pr6.1.4; Pr8.1.4

Elements and Principles: color, shape, space

Lesson Theme: Floral Relief Sculpture

Media/Supplies: Examples of Carver’s paintings, (included in this curriculum), air-dry modeling clay, markers, cardboard for background, tempera, or watercolor paints

Objectives: Students will learn about famous Missouri scientist and artist George Washington Carver. They will understand his love of nature and art. Students will create a relief sculpture using model magic. Color will be kneaded into the clay to simulate the dyeing process of the time period. Students will use relief sculpture techniques to complete the composition.

Vocabulary: George Washington Carver, relief sculpture, kneaded, simulate, composition

Process:

- Divide class into groups of 4 to 6 students
- Show students Carver’s painting
- Provide each student with cardboard cut into 6x9 inch pieces
- The background should be painted blue, using watercolors or tempera, and placed aside to dry. (Be sure to have students write names on the back before beginning to paint.)

- Supply each group with one small container of white, air-dry modeling clay
- Divide the modeling clay into equal parts
- Give each student in the group a different colored washable marker. Students will share the color they make with all students in their group. (Use colors of flowers and stem, i.e., red, yellow, orange, pink, violet, light and dark green)
- Teacher should model this technique before having students apply color with the marker to the air-dry modeling clay and knead the color into the clay until the color is consistent. (The smaller the amount of clay and the darker the color of marker the faster the clay will attain desired color.)
- Tear small pieces of the clay starting with the stem and leaf color and apply directly to the background surface. Simply push with enough force to get the clay to stick, no glue is needed.
- Apply the flower colors last and mold petals with inside part stuck down and outer petals pulled up and away from the background, to create a three-dimensional quality.

Teacher Notes: This project is fun and very aesthetically pleasing. It also promotes the understanding of kneading color into the clay. You could use berries instead of markers if you'd like to make the lesson more authentic. The project uses Carver's style with a modern twist.

Lesson Extensions:

1. Have students research other African American artists from the same time period. (i.e., Edward Bannister, Edmonia Lewis, or Henry Ossawa Tanner's "*The Banjo Lesson*")
2. Famous white actor John Wayne was born in Winterset Iowa. Compare and contrast what their lives were like in the same town. (May require further teacher research.)

Assessment:

1. **Constructed Response Question:** What kinds of hardships did George Washington Carver overcome in his quest for education?
2. **Word Find**

Yucca and Cactus Word Search

R V M K O U I F Y L H Z L A Q K D F Z R U H G C K
 E E E H C N R Z H X D A W G Q V R U T K S O L I L
 H S V O D J A W E M R O R D B Y I G Q I Q R I T I
 L E S R M B F I O W I Z T D L B J Z M U I T S E R
 Z F G A A V G N P T U S Y T W N I P W Z E I T M E
 U Q Y E Y C Q V E A R G D F T O S C Q A W C R H T
 O C P S L W N S Y U C C A G L O R I O S A U I T T
 Q W E M M L R O W R X D N E N J Y K C T X L A I A
 G M J K J E O I T T M Q H O Q R U E A J G T F R B
 A D J R T P J C T G S U E T C M D K N Y F U S A U
 C O R N M E A L T I N R A M M A R G Q X T R D W D
 O T I V F F X I F R N I C Z R E R Z T Z I E L B D
 E W I X L J K R Q P A G H R E R U T L U C I R G A
 C M C N S G V M O W X U A S H P C J N M U J O O M
 I U Q Z O Q Z N Y K Y P U D A A G W G V T U W K X
 O U Z E P A S G B C I I Q Y Q W Q G P P H A O O E
 V G E F C A O N D D N O T N N H E N G J X L G T N
 S Q N K V L E M S X G H B S L B B G F W H B A K C
 R A E W O F C Y R U T G J B Y W F R R W B Z C P S
 B M S M T Y F W Q L I V B L W V L I E O C F I V R
 T W Y A T B W O W S E G G L M U K C P S E C H N U
 V T S E Y P K H V C M Z Y H P Q Z H K C I G C Q O
 E L H W T N G K Z K X U Z F S E P D T Z Z Y P U P
 J V R N C H O H T Z A P D C B O B E O B X U M J X
 C T C J C C H F Q K T X E Y X O K G K B F A L W E

AGRICULTURE
 AMES
 ARITHMETIC
 ARTCOLLEGE
 CEDARRAPIDS
 CHICAGOWORLDSFAIR
 CORNMEAL
 ESSAYWRITING
 ETTABUDD
 ETYMOLOGY

GEORGEWASHINGTONCARVER
 GRAMMAR
 HARDWORK
 HORTICULTURE
 PIANO
 SIMPSON
 SUET
 VOICE
 WINTERSETIOWA
 YUCCAGLORIOSA

Yucca and Cactus Word Search

Answer Key

R V M K O U I F Y L H Z L A Q K D F Z R U H G C K
E E E H C N R Z H X D A W G Q V R U T K S O L I L
H S V O D J A W E M R O R D B Y I G Q I Q R I T I
L E S R M B F I O W I Z T D L B J Z M U I T S E R
Z F G A A V G N P T U S Y T W N I P W Z E I T M E
U Q Y E Y C Q V E A R G D F T O S C Q A W C R H T
O C P S L W N S Y U C C A G L O R I O S A U I T T
Q W E M M L R O W R X D N E N J Y K C T X L A I A
G M J K J E O I T T M Q H O Q R U E A J G T F R B
A D J R T P J C T G S U E T C M D K N Y F U S A U
C O R N M E A L T I N R A M M A R G Q X T R D W D
O T I V F F X I F R N I C Z R E R Z T Z I E L B D
E W I X L J K R Q P A G H R E R U T L U C I R G A
C M C N S G V M O W X U A S H P C J N M U J O O M
I U Q Z O Q Z N Y K Y P U D A A G W G V T U W K X
O U Z E P A S G B C I I Q Y Q W Q G P P H A O O E
V G E F C A O N D D N O T N N H E N G J X L G T N
S Q N K V L E M S X G H B S L B B G F W H B A K C
R A E W O F C Y R U T G J B Y W F R R W B Z C P S
B M S M T Y F W Q L I V B L W V L I E O C F I V R
T W Y A T B W O W S E G G L M U K C P S E C H N U
V T S E Y P K H V C M Z Y H P Q Z H K C I G C Q O
E L H W T N G K Z K X U Z F S E P D T Z Z Y P U P
J V R N C H O H T Z A P D C B O B E O B X U M J X
C T C J C C H F Q K T X E Y X O K G K B F A L W E

Teacher Resource for Lesson: The Plant Doctor

George Washington Carver created artistic works from childhood in Diamond, Missouri, and throughout his lifetime, deriving inspiration from beauty in nature. Carver had a great passion for art, possessing the soul of an artist and an appreciation for the fine arts.

George Washington Carver's love for art began when he was still a young boy growing up on the Carver farm. One morning George was sent on an errand to the Baynham farm, known locally as a mansion. George went into the parlor and there a new world opened to him. He saw family portraits on the walls, the first paintings he had ever encountered. Along the way home he mused, "A man made those pictures. He made them with his hands, I want to do that." He painted his first pictures with paints he made from bark, roots, and wild berries. Having no canvas, he used boards, tin cans, glass, and flat rocks. His early drawings of his home and the landscape allow us to see what it looked like then. They may be the only visual representations of the 240 acre farm where he grew up as a child.

George was a frail and sickly child. Susan and Moses Carver were his caretakers after his mother, Mary, was lost during a kidnapping. Because of his illness, George was given only light tasks as a child and Susan became a significant role model, teaching him the "womanly" skills of sewing, cooking, laundering, and needlework. Moses' influence can be seen in George's love of music and his disgust at wastefulness.

George was allowed considerable freedom merely to be a boy. This freedom fostered his natural curiosity and zest for life. Hours were spent roaming the woods on the Carver farm. As he explored the woods, he collected things he found beautiful. He was fascinated with the unusual and the stalking of "wild game", usually of the reptile or insect variety. George carefully concealed these and other treasures in his pockets, to be secretly hoarded away in the Carver's cabin. After a few unpleasant encounters with George's creatures, Susan required George to empty his pockets at the doorstep.

George was an orphaned, African American, sickly child - a unique combination in that frontier town. Three factors set George apart from his young, white neighbors: his frailness, his genius, and his color. Almost from the beginning he was recognized as being special. His curiosity seemed to run deeper than average, and he mastered whatever was taught him. In a little plant nursery in the woods he called his secret garden, he carefully transplanted and cultivated many native plants. Keen observations born of

curiosity led George to an understanding of the needs of each plant and an ability to nurse sick plants to health. This skill was widely appreciated in the neighborhood and caused him to be called the Plant Doctor. Throughout George's young life he pursued learning and had a great desire to attain an education. By the age of about 10-12 years, he had learned everything that he could, not only from Moses and Susan Carver, but from a private tutor as well.

The Plant Doctor Lesson Plan

Grade Level: Third and Fourth

Missouri Learning Standards Visual Arts:

3.VA.1.A,B; 3.VA.2.A,B; 3.VA.10.A

4.VA.1.A, B; 4.VA.7.A; 4.VA.9.A

Missouri Learning Standards Social Studies:

3.H.3.B.b; 3.H.3.C.a; 3.EG.5.D; 3.RI.6/E

4.EG.5.D; 4.EG.5.F

National Visual Arts Standards – Media Arts:

CR3.1.3; Pr6.1.3

CR3.1.4; Pr6.1.4

Elements and Principles: texture, line, shape, and space

Lesson Theme: Nature’s Collage

Media/Supplies: Mixed media, twigs, leaves, construction paper, glue, and pictures of Carvers artwork using natural woven fibers and collages

Objectives: Students will appreciate Carver’s ability to use natural materials in his artwork. Students will use items found in nature, as well as modern art supplies to create a collage.

Vocabulary: organic shapes, texture, collage, positive and negative space, background, foreground

Process:

- Take class on a nature walk and have students collect small twigs and leaves along the walk. (If a nature walk is not possible bring in twigs and leaves for student use.)
- Glue twigs onto 12x18 inch blue construction paper background to look like a tree limb. (You may use more than one in varying sizes to create the look of a tree with limbs.)
- Glue the leaves onto the branches
- You may also have students cut and glue construction paper blossoms or apples onto the limbs

Teacher Notes: This is a very simple and fun project. Collage may be created from anything that you can glue onto the background. You could incorporate pieces of fabric or lace for the flowers.

Lesson Extensions: An interdisciplinary science lesson could easily be used to complement this art lesson. Parts of a plant could be studied and labeled, and students could try to replicate the petal shapes of particular species. (i.e., tulip, day lily, rose, sunflower, peony, etc.)

Assessment:

1. Give students a contour of a flower and have them label the parts.
2. Compare and contrast life for Carver as a child to their life today.

Teacher Resource for Lesson: George Washington Carver's Many Talents

Many of the talents George Washington Carver possessed were attributed to his early childhood experiences. George's love of nature, love of learning, and deep religious nature, were shaped on the Carver farm in Diamond Grove (now called Diamond), Missouri. George's acts of kindness, such as whittling crutches for a friend, were fondly remembered decades later. Even before he left Diamond, the contours of his life could be glimpsed.

Ironically, his curious mind made him aware of racial prejudice. He hungered for more knowledge than the Carvers could give. George was willing to work hard for an education, but he soon discovered that goal was more elusive than he expected, when he was denied entry to the local school. He left the Carver farm between the age of 10-12 years, to attend the school for African Americans in Neosho. He was filled with eager anticipation as he stepped into that school, however disillusionment soon replaced excitement as he realized that the teacher knew little more than he did. Thus, the second phase of his quest for knowledge began as he hitched a ride with a family moving to Fort Scott, Kansas in the late 1870's.

Throughout Carver's young life he continued a relentless and somewhat elusive journey for education. He did laundry, cleaned, and cooked, and took other odd jobs, but kept moving with each new prospect for attaining education. He also continued to display diverse talents and grew in his religious faith in God. He painted, crocheted, "fooled around with weeds," and played the piano, mouth harp, and accordion.

With each move, Carver's talents and personality soon won him the respect of his neighbors. He was often considered to be the best educated person in the area. While living in Minneapolis, Kansas he developed an interest in art, taking his first lessons from Clara Duncan, an African American woman who had taught at Talladega College. He played the accordion for local dances and joined the local literary society, which met weekly for plays, music, and debates.

His experiences in search of an education had already developed in him diverse skills and interests. His curiosity, intuitive grasp, and haphazard education combined to give him a remarkable understanding of natural processes, and he had developed a considerable love of music and art, with some degree of skill in both. Running through all his experiences was a growing religious faith that sustained him and opened the door to several long-lived friendships.

George Washington Carver's Many Talents Lesson Plan

Grade Level: Third and Fourth

Missouri Learning Standards Visual Arts:

3.VA.1.A,B; 3.VA.2.A,C; 3.VA.3.A
4.VA.1.A; 4.VA.2.A; 4.VA.3.A; 4.VA.7.B

Missouri Learning Standards Social Studies:

3.H.3.B.b; 3.H.3.C.a; 3.EG.5.D; 3.RI.6/E
4.EG.5.D; 4.EG.5.F

National Visual Arts Standards – Media Arts:

Cr1.1.3; Cr2.1.3; CR3.1.3; Pr7.1.3
Cr1.1.4; Cr2.1.4; CR3.1.4; Pr7.1.4

Elements and Principles: color, shape, space, balance, texture, rhythm, movement

Lesson Theme: Creative Writing Poster

Media/Supplies: crayons (wax based) or oil pastels and watercolors or dry tempera

Objectives: Students will understand the many talents and character traits that made George Washington Carver likeable to so many. Students will choose words to describe Carver's character. They will use a variety of creative writing styles to design a paper with the words they have chosen. This will be a poster style graphic design.

Vocabulary: graphic, design, creative writing styles, variety, character traits, talents

Process:

- Supply students with construction paper, 9x12 or 12x18 inch
- Provide visual examples of creative writing styles
- Read the Teacher Resource or have students read "George Washington Carver's Many Talents".
- Have students write the words on the paper which they feel are important to Carver's life, using a variety of fancy or creative writing styles. (Suggestion: use a pencil and draw lightly on the paper and use random sizes as well as placement on the paper.)

- Once students feel that the arrangement of words is complete and appealing visually, have them use warm color (yellows, oranges, and reds) crayons to trace their words. (Push hard on crayon and use only one color per word.)
- Paint over the entire paper with cool colors (greens, blues, and violets) using watercolor or dry tempera. (Lots of water small amount of paint or paint entire paper with water only add paint and water to complete. You want the paint to be light.)

Teacher Notes: This is called a resist painting. The wax in crayons or oil in oil pastels will resist the paint. You may have the students blot off excess wetness before putting the painting away. When you use the warm colors for the words and the cool colors for the empty or negative space, it will make the words stand out because light colors come forward and darker colors recede and because warm and cool colors are opposites, they complement each other by make both colors look bolder and brighter.

Lesson Extensions:

1. You could use a mobile instead of a resist painting for the character trait words.
2. Have students create a poster or painting using positive character traits that they possess.
3. Assign a famous Missourian for research and have them create a poster of character traits about this person.

Assessment: Have students create a word match with the definitions of each character trait that they listed.

Teacher Resource for Lesson: To Be of the Greatest Good

By 1891 Iowa State College of Agriculture and Mechanic Arts had become a leading center of agricultural education and research. The faculty in 1891 included men of widely recognized ability who later left for distinguished careers with the federal government. George Washington Carver received superior training in agriculture that later provided beneficial to his career.

During his time at Ames, Iowa he paid his way through college by doing menial jobs on campus and in town. Carver also played the guitar and gave lessons to a classmate. He gratefully accepted others' discards, and one student recalled that Carver would cut up and save used wrapping paper and his classmates would turn over their stub pencils to him for the purpose of his note taking. He recycled old burlap and string bags into functional and attractive needlework. Bark fibers were woven into mats. Reusing discarded materials was a hobby that Carver practiced throughout his life.

He did not neglect his art either. He sometimes went on sketching trips and presented several faculty members and students with his paintings. Because of his wide-ranging abilities and warm personality, George Washington Carver was popular with other students. He was assigned research responsibilities and taught freshmen biology courses during his post-graduate studies. His ability to inspire and instruct extended beyond the students under his immediate charge.

Nearing the completion of work for his Master of Agriculture degree in 1896, Carver discovered that he had several options for his future. He lamented that he had given up his cherished work as an artist because "it would not do to his people as much good as a thorough knowledge of the sciences of agriculture, which he might impart to them." He was speaking about southern, African American farmers.

On April 12, 1896, George Washington Carver enthusiastically declared that "it has always been the one ideal of my life to be the greatest good to the greatest number of 'my people' possible and to this end I have been preparing myself for these many years; feeling as I do that this line of education is the key to unlock the golden door of freedom to our people." Carver accepted Booker T. Washington's job offer for a position at Tuskegee Institute to uplift African Americans in southern Alabama, who certainly needed help to rid themselves of the legacies of slavery: poverty, poor education, inefficiency, and economic dependence.

Upon arrival at Tuskegee, Carver expressed that he did not expect to teach many years. His hope was to “. . . engage in my brush work, which will be of great honor to our people showing to what we may attain, along science, history, literature, and art.” However, George Washington Carver’s work at Tuskegee lasted for the remainder of his life. Rising at four o’clock each morning, he often worked late in his laboratory, yet managed to turn out more than forty paintings, consisting of oil, charcoal, watercolor, natural dyes, and pen-and-ink sketches during his years at Tuskegee.

To Be of the Greatest Good Lesson Plan

Grade Level: Third and Fourth

Missouri Learning Standards Visual Arts:

3.VA.1.A,B; 3.VA.2.A,B

4.VA.1.A,B; 4.VA.2.A,B; 4.VA.11.A

Missouri Learning Standards Social Studies:

3.H.3.B.b; 3.H.3.C.a; 3.EG.5.D; 3.RI.6/E

4.EG.5.D; 4.EG.5.F

National Visual Arts Standards – Media Arts:

Cr1.1.3; Cr2.1.3; CR3.1.3

Cr1.1.4; Cr2.1.4; CR3.1.4

Elements and Principles: color, space, shape, balance, texture, emphasis

Lesson Theme: Recycling With Cardboard

Media/Supplies: Cardboard from shipping boxes cut into good sized squares or rectangles, precision cutting knives or utility knives, tempera or acrylic paints, and brushes

Objectives: Students will learn about Carver’s hobby of finding new uses for trash and other discarded items. Students will use positive and negative space while planning an aesthetically pleasing design on cardboard. Students will use utility knives to trace their drawing pushing hard enough to cut through only the top layer of cardboard. They will remove top layers in sections of the cardboard that constitutes the positive space. The corrugation left in those areas creates texture, recess, and a focal point in the artwork. The project will be painted for completion.

Vocabulary: positive space, negative space, corrugation, texture, focal point, recess, recycle

Process:

- Cut cardboard with utility knife into nice sized squares or triangles.
- Have students sketch a simple organic design onto the cardboard (i.e., flower, word or words using bubble letters). Emphasize positive and negative space.

- Have students trace pencil lines with the utility knives, pushing hard enough to cut through the top layer of cardboard, but not all the way through the other side.
- Students will peel the top layer away where desired. Make sure students leave an area uncut for each area extracted.
- The corrugation creates a recess and texture.
- Have students paint the corrugated areas first using lighter colors.
- Paint the background with darker colors or opposites.

Teacher Notes: Make sure that the design is going to work before giving students the utility knives. Have them use the knife the same way they use their pencils when drawing. Make sure that you go over safety procedures before giving the knives to students and do not tolerate horseplay. Personally pick up knives from each child when completed (possibly mark name from list). Students really like this project, and the final project is quite impressive when done correctly.

Lesson Extensions: Instead of the corrugated cardboard project, you could have students bring old bottles, cans, boxes, fabrics, paper towel or toilet paper tubes, any throw away items that can be used in creating a sculpture. (You will need to use hot glue to secure these items together into a sculpture). You could even have it as a homework assignment or for extra credit if they bring it to school.

Assessments:

1. Constructed Response or Essay Question: Why do you think that George Washington Carver made the decision to go to Tuskegee Institute?
2. Having lived most of his life among whites, what problems do you predict for him in this move that placed him on an all-black campus, being paid more than some other teachers and allowed a private room, while other teachers had to share rooms?

Teacher Resource for Lesson: Resource to His People

George Washington Carver viewed Tuskegee Institute not only as his mission field, but as a temporary one. *“You doubtless know that I am came here (solely) for the benefit of my people, no other motive in view. Moreover, I do not expect to teach many years, but will quit as soon as I can trust my work to others, and engage in my brushwork, which will be of great honor to our people showing to what we may attain, along science, history, literature, and art.”*

In 1901, Carver discontented with his accommodations, appealed to the Tuskegee Board for two more rooms. He stated *“I desire a place to do some historic painting. I greatly desire to do this that it may go down in the history of this race.”* Throughout his long tenure at Tuskegee Institute the demands on his time were enormous. What spare time he salvaged from his hectic schedule usually went for the pursuit of loves he had sacrificed, like botany and art. He found time to crochet, knit, and do needlework. He found these activities fulfilling and they enabled him to produce useful items for friends. He had great appreciation for the world around him, especially the materials found in nature. He dyed many of his own threads and fibers with natural dyes made from local walnut, mulberry, and ochre clay.

George Washington Carver became a scientist, a teacher, a speaker, and more but he never entirely let go of his art. Rather he brought it into his other pursuits and at times even let it guide them. Carver taught art classes at Tuskegee Institute in addition to his regular roster of courses. He also allowed his artistic talents to improve his scientific work. He drew diagrams with the fine pen of an illustrator, collected specimens with the attention of a painter and crossbred plants with profound creativity. Throughout his life he maintained the soul of an artist and continued to paint. Carver was driven by science but art remained his passion.

George Washington Carver’s talents were recognized in England as well as in the United States. In 1916, he was elected Fellow of the Royal Society of Arts. In his final years, Carver decided that in addition to his other achievements, he wanted also to be remembered by his artistic talents. Carver’s greatest recognition as an artist came on November 17, 1941, when the Carver Art Gallery in the George Washington Carver Museum at Tuskegee Institute was opened to the public.

Quoting an article in *Time* magazine on Monday, November 24, 1941: “By the time he had got them all hung, Painter Carver had filled the Museum’s

gallery with 71 of his pictures . . . Many of them painted with homemade colors . . . Nearly all were deft, somewhat primly academic depictions of natural phenomena. Visitors, impressed by the simple realism and tidy workmanship of the pictures, found still more to admire in the adjoining collection of handicrafts (embroideries on burlap, ornaments made of chicken feathers, seed and colored peanut necklaces, woven textiles) which almost incredibly versatile Carver had turned out between scientific experiment and painting. His gnarled hands are always busy with bits of string, tinfoil, clay, which he fashions, as he talks, into decorative objects. He is proudest of his *Peaches*, painted with pigment made of native clay, not as a work of art but because any child should be able to use similar material. *'That's just the clay we walk on every day. . . Our clays are just as brilliant as the ones the old masters used. Michelangelo used clay like this.'* ”

More than 2,000 visited the gallery on opening day. His work won high praise from art critics. His work surprised and inspired many. Recognizing Carver's many and varied talents, one visitor asked how he had been able to do so many different things. George Washington Carver replied, *"Would it surprise you if I told you that I have been doing only one thing? The artist, his writings, his weaving, his music, his paintings are just the expressions of his soul in search for truth."*

Resource to His People Lesson Plan

Grade Level: Third and Fourth

Missouri Learning Standards Visual Arts:

3.VA.2.A,B; 3.VA.8.A; 3.VA.11.A

4.VA.1.A,B; 4.VA.2.A; 4.VA.11.A

Missouri Learning Standards Social Studies:

3.H.3.B.b; 3.H.3.C.a; 3.EG.5.D; 3.RI.6/E

4.EG.5.D; 4.EG.5.F

National Visual Arts Standards – Media Arts:

CR3.1.3; Pr6.1.3

CR3.1.4; Pr6.1.4

Elements and Principles: line, color, texture, rhythm, pattern

Lesson/Theme: Friendship Bracelet

Media/Supplies: Cross-stitch thread and safety pin

Objectives: Students will understand the George Washington Carver used many types of media, including fibers, in his artwork. Students will value Carver’s many skills and his capacity to form lasting friendships. Students will learn to weave a bracelet. They will pick their own colors using their knowledge of color theory. Students will also be encouraged to give the bracelet to a friend whose friendship they cherish.

Vocabulary: analogous colors, complementary colors, diagonal line

Process: Weaving instructions are included

Teacher Notes: Students love to weave. Allow them plenty of time to complete the bracelet. You may even want to let them take it home if time is short. Once they have the hang of the weave, those who understand it and are successful can also help others.

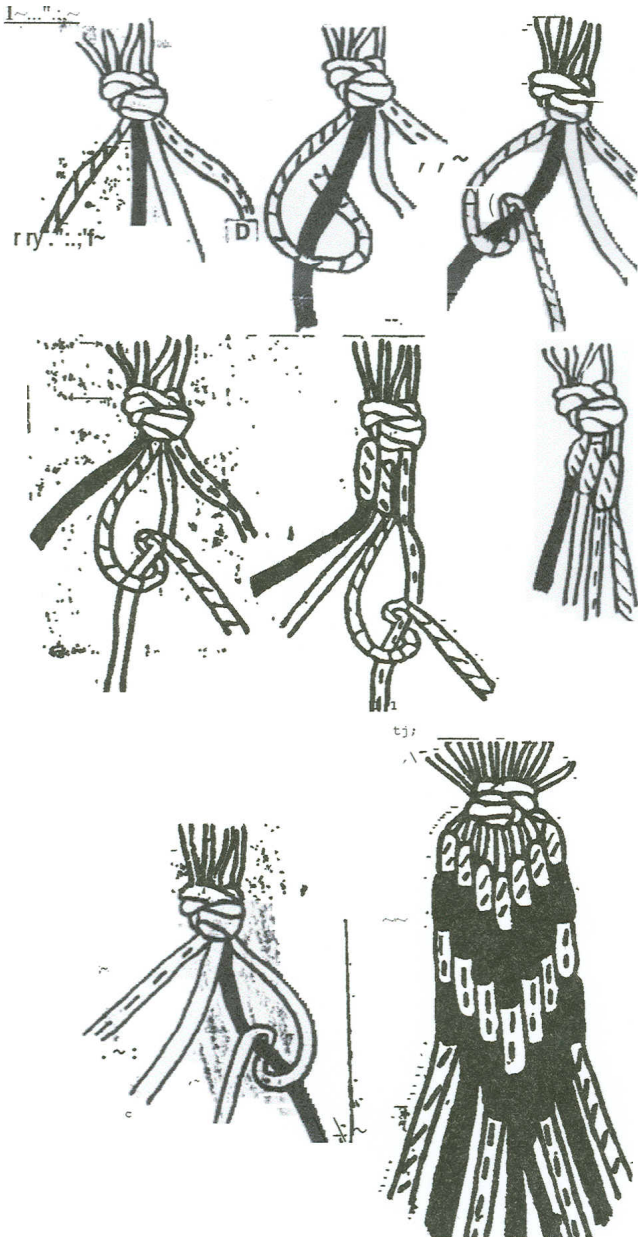
Friendship Bracelets

READ ALL DIRECTIONS CAREFULLY BEFORE BEGINNING.

Learn the basic bracelet stitch before undertaking the more difficult patterns.

BASIC STITCH BRACELET

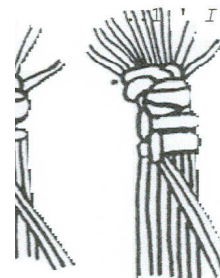
1. Start with one yard each of 4 colors. Lay them all together about three down with an overhand knot.
2. Pin the knot to a sturdy surface i.e., a pillow, your jeans, a knotting board.
3. Separate the strands calling them A -B- C and D. Keep strands separated near the bottom to prevent tangling.
4. Lay strands A and B as pictured, wrapping A over and then under B. Lighten the knot by holding B taut and pulling A up. Too tight will result in a stiff bracelet, too loose, will cause holes between the knots.
5. Repeat step 4.
6. Now place strand B to the left side.
7. Using strands A and C, repeat steps 4 and 5 placing strand C to the left.
8. Now working from the left again, tie strand. B and C as pictured in steps 4 and 5, placing strand C to the left. Continue across, ending with .strand B on the right.
9. Using strands A and D. repeat .steps 4 and 5. Continue knotting until desired length is reached.
10. Make knot to end off.



ARROW STITCH BRACELET

1. Choose 4 colors. Cut 2, one-yard pieces of each color. Example: Red-Yellow-Blue-White, White-Blue-Yellow-Red
2. This pattern uses the basic stitch and the basic stitch reversed. Using the first 4 strands on the left, follow steps 4 through 7 of Basic Stitch.
3. Now work from the right to the left (see illustration for reversed basic stitch) using the 4 strands on the right.
4. After the first row is finished, tie the 2 center strands together in a basic knot. They both should be the same color. Continue until desired length is reached.
5. Knot to end off.

1. This pattern requires 2 strands 90 cm. long each and 6 strands 15 cm. long each. This is a solid color bracelet. Knot the strands together and pin to anchor.
2. Separate the strands, placing the 2 long strands together on the left and the 6 short strands together on the right. Treat these as 2 strands the 2 long strands as A and the 6 short strands as B.
3. Tie strands as in step 4 of Basic Stitch.
4. Continue knotting in exactly the same way. A diagonal row of knots will form, slanting towards the right. Try to work the knots under each other rather than on top. This will keep the spiral uniform. Continue knotting, turning bracelet slightly as *you* work, until bracelet is long enough to fit around your wrist.
5. Make knot to end off.



Lesson Extensions:

1. Have students cut out two pictures of the same size from magazines and cut one vertical and the other horizontal for weaving. This creates an optical illusion and can be very interesting. It can also connect to recycling for which Carver was well known.
2. You could have students dye their own strips of material, possibly tie-dye, and weave it into long braids. Once the braids are completed, have students roll the braid into a round coaster. Secure by sewing together where needed on the bottom.

Assessment: Journal Reflection – Why do you think George Washington Carver became a famous American?

Teacher Resource for Lesson: A Colorful South

As early as the days of his youth, George Washington Carver made his own paints and pigments. As a child, he made paints from crushed berries, seeds, and flowers. Creating his own paints remained a hobby throughout his life.

As an adult he became interested in the natural colors in clay. In 1901, he discovered that Alabama clays produced beautiful, long lasting pigments when mixed with starches, pastes, or oils. He refined the extracted pigments and made paints.

When no chemical lab was provided for him at Tuskegee, he constructed his own. *“I went to the trashpile at Tuskegee Institute.”* Carver recalled, *“and started my laboratory with bottles, old fruit jars and any other thing I found could use.”* Carver was able to provide valuable services with his makeshift lab. He went from cook stove chemist to creative chemist.

At the heart of his activities, were the ideas that nature produced no waste and even the poorest man could improve his living conditions through the proper use of natural resources. Native clays were the only natural resources that interested Carver from a natural standpoint during the first two decades of his work. He advanced the use of native clays in beautifying unpainted houses with color washes. He was intrigued with the possibility that paint production could become a leading industry for the area and made several unsuccessful attempts to arouse interest in the commercialization of Alabama clays.

Wanting the south to be beautiful as well as fed, George Washington Carver shared his paint-mixing recipes freely in bulletins and talks. He hoped to show poor people how to surround themselves with beauty without spending a penny. His pigments were used to color several buildings on Tuskegee’s campus and in nearby towns.

Carver began displaying his work at county fairs and colleges throughout the south. His artistic abilities helped him to create eye-catching displays. His swatches of coordinating colors showed people how to match up paint colors for aesthetically pleasing outcomes. As an agricultural chemist, Carver discovered three hundred uses for peanuts and hundreds more uses for soybeans, pecans, and sweet potatoes. Among the items listed that he suggested to southern farmers to help them economically were his recipes for and improvements to: adhesives, axle grease, bleach, buttermilk, chili sauce, fuel briquettes, ink, instant coffee, linoleum, mayonnaise, meat

tenderizer, metal polish, paper, plastic, pavement, shaving cream, shoe polish, synthetic rubber, talcum powder and wood stain.

He also worked at developing industrial applications from agricultural crops. During World War I, he found a way to replace the textile dyes formerly imported from Europe. He produced dyes of 500 different shades and was responsible for the invention of a process for producing paints and stains from clay. George Washington Carver received three separate patents:

- U.S. 1,522,176 Cosmetics and Producing the Same. January 6, 1925. George W. Carver. Tuskegee, Alabama
- U.S. 1,541,478 Paint and Stain and Producing the Same June 9, 1925. George W. Carver. Tuskegee, Alabama
- U.S. 1,632,365 Producing Paints and Stains. June 14, 1927. George W. Carver. Tuskegee, Alabama

George Washington Carver did not patent or profit from most of his products. He freely gave his discoveries to mankind. Most important was the fact that he helped change the south from being a one-crop land of cotton, to being multi-crop farmlands, with farmers having hundreds of profitable uses for their new crops. "God gave them to me." he would say about his ideas, "How can I sell them to someone else?" In 1940, Carver donated his life savings to the establishment of the Carver Research Foundation at Tuskegee Institute.

George Washington Carver was bestowed an honorary doctorate from Simpson College in 1928. He was an honorary member of the Royal Society of Arts in London, England. In 1923, he received the Spingarn Medal given every year by the National Association for the Advancement of Colored People. In 1939, he received the Roosevelt Medal for outstanding contributions to southern agriculture. On July 14, 1943 President Franklin D. Roosevelt honored Carver with a national monument dedicated to his accomplishments. The area of George Washington Carver's childhood near Diamond, Missouri is preserved as George Washington Carver National Monument, the first unit of the National Park Service designated to honor an African American.

A life that stood out as a gospel of self-forgetting service. Could have added fortune to fame, but caring for neither, he found happiness and honor in being helpful to the world - excerpt of the epitaph on the George Washington Carver's grave

A Colorful South Lesson Plan

Grade Level: Third and Fourth

Missouri Learning Standards Visual Arts:

3.VA.1.B; 3.VA.2.A; 3.VA.7.A
4.VA.2.A; 4.VA.3.A; 4.VA.11.A

Missouri Learning Standards Social Studies:

3.H.3.B.b; 3.H.3.C.a; 3.EG.5.D; 3.RI.6/E
4.EG.5.D; 4.EG.5.F

National Visual Arts Standards – Media Arts:

CR3.1.3; Re8.1.3
CR3.1.4; Re8.1.4

Elements and Principles: color, value

Lesson Theme: Monochromatic Paint Swatches

Media/Supplies: pre-mixed tempera paints, construction paper cut into 6x12 inch strips, paint brushes

Objectives: Students will understand George Washington Carver’s desire to create a colorful South. They will learn about color value using one color plus white and black to get as many tints and shades of that color possible.

Vocabulary: color value, monochromatic, tint, shade, color swatch

Process:

- Give each student one color of tempera paint plus black and white
- Have students start in the center of the paper and paint the pure color without anything added
- Begin adding small amounts of white to get color variations (tints)
- Paint each color onto paper touching the previous color, going up on the paper
- Do the same thing by adding black (shade) to the true color going down on the paper

Teacher Notes: You might start by showing students examples of paint swatches from hardware or paint stores. It’s an easy lesson that makes Carver’s swatches more memorable to students.

Lesson Extensions:

1. The same lesson using analogous or warm and cool colors.
2. Try the lesson using complementary colors (opposites) for a much different effect.

Assessment: The color swatches can be considered a performance event. You could grade the value range and give students a specific number of colors for grading purposes. Have students explain the process and talk about their favorite color that was created in the process.