

A DREAM FULFILLED

The Saga of George Washington Carver

BY MICHAEL PATTERSON

2010 TEACHERPAC



Des Moines Metro Opera's
Educational Touring Troupe



THE BRIGHT FOUNDATION



PIONEER
A DUPONT COMPANY

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Dear Music Teacher or Principal,

What makes a man a legend? In the case of George Washington Carver it wasn't just peanuts. Listen, read and learn about the life and work of this extraordinary Iowan, born into slavery, who used his gifts to become a groundbreaking scientist, educator, and humanitarian with a lifelong mission: to bring practical knowledge to those in need. OPERA Iowa's new production *A Dream Fulfilled: The Saga of George Washington Carver* tells the story of his success as a student, teacher and researcher by highlighting important episodes in his life's journey. The opera explores the roots of his "mighty vision" and how the strength of his character and background can be linked to the foundation of modern innovations such as organic farming and research on plant-based fuels, medicines, and everyday products.

The OPERA Iowa tour has shaped up very quickly and before you know it we will be on our way to your school and performance site. As our rehearsal period has progressed, it has been a thrill to see these productions come to life! These young professionals will be bringing you wonderful productions of *A Dream Fulfilled: The Saga of George Washington Carver*, *Hansel & Gretel* and *The Barber of Seville*. No matter which opera you will be seeing, I know you will enjoy their fine performances and the charming sets and costumes!

This is your TEACHERPAC for *A Dream Fulfilled*. You will also receive OPERA Iowa newspapers based on the number of students/audience members you indicated on the information sheet you returned to us. You will have enough newspapers for your first through sixth graders. When designing the newspaper, we try to include activities that are appropriate for all children, regardless of age level. This is a difficult task to be sure, and some of the younger students may find some parts of the newspaper a bit challenging. Please note that the TEACHERPAC includes several classroom activities you can use to help prepare the students for OPERA Iowa's arrival. I hope you will find these materials helpful to you in your preparations. The opera will be briefly reviewed in the introduction to be held immediately prior to the performance for all students in attendance.

Also enclosed in your TEACHERPAC are the names and addresses of the OPERA Iowa sponsors. Please take a moment to send them thank-you letters for their support. Letters, drawings and banners from the students are especially welcome. Also, please return the OPERA Iowa evaluation form to me. Your input is important and many of our decisions for upcoming seasons are based on your feedback.

If I can answer any other questions, please give me a call.

Sincerely,



Michael Egel
Director of Artistic Operations

Please note...

It is essential that you provide the needed
personnel assistance for the Technical Director.

Please see page 6.

Evaluation of Your OPERA Iowa Experience

Your comments are invaluable in helping us plan our programs. After the performance, please ask a staff member who was involved in the day's activities to fill out this form and return it to Michael Egel by mail (Des Moines Metro Opera, 106 West Boston Avenue, Indianola, IA 50125-1836), by fax (515-961-8175) or by email (dmmo@dmmo.org).

Which opera performance did you attend? _____ Date of performance _____

Name of school _____ Your name _____

Position _____ Did you find the classroom activities helpful? _____

What information/changes could we provide for next year? _____

Were the pre-performance workshops appropriate to the age level of the students? Relevant? Entertaining? Educational?

Did you find the advance materials helpful? _____ Appropriate to the age level? _____

Reaction of the students: _____

What is your opinion as to the quality of the production? Scenically? Musically? _____

Reaction of the students: _____

Suggestions for future performances and/or student workshops: _____

General comments and suggestions: _____

May we have permission to print excerpts from your comments in the Summer Festival program? (circle one) Y N Did the local newspaper print anything about OPERA Iowa? Y N (We would appreciate a copy!) Would you be interested in booking similar performances in the future? Y N Contact person _____ Phone _____

Thank you for taking time to fill out this evaluation!

A DREAM FULFILLED: *The Saga of George Washington Carver*

Music.....Michael Patterson
Libretto.....Michael Patterson
Music DirectorMichael Sakir
Stage Director..... Robert L. Larsen

Technical Director Adam Rager
Scenic Designer..... Steven McLean
Costume Coordinator Chari Kruse

Cast of Characters:



George Washington Carver Roland Hawkins
Mrs. Helen Milholland.....Megan Marino
Dr. John Milholland.....Dan Richardson
Alice Boulton.....Diana Stoic
Pauline Tyler.....Megan Marino
Miss Etta M. Budd..... Kristin Titus
Mrs. Arthur W. ListonMegan Marino
Dr. L.H. Pammel Eric Bowden
The SecretaryDiana Stoic
Mr. Joseph Fordney Benjamin Bear
Mr. John N. Garner.....Dan Richardson
Mr. Henry T. Reney Eric Bowden
Mr. Carew Andrew Wannigman

The Setting:

PrologueStreets of Winterset, Iowa, 1890
Scene 1 Simpson College Art Room, 1890
Entr'acte..... Streets of Indianola, 1891
Scene 2 The Student Union at Iowa State College, 1894
Scene 3 Washington D.C., U.S. Capitol Building, 1921
Epilogue..... Indianola United Methodist Church, 1941



About the Opera:

This one-act opera for children describes the life and times of George Washington Carver in Iowa and his life-long connections to the people with whom he lived, studied and worked. His time in the Hawkeye State helped him develop his methods of teaching and research that propelled him to national prominence, and the personal and professional connections established while in Iowa would help lead him to the halls of Congress and provoke luminaries to visit him in Tuskegee, Alabama.

George Washington Carver came to Winterset, Iowa, in the late 1880s. He left behind a life of a homesteader in search of a better way of living. He was a resourceful man in his late twenties who was not afraid of hard work and came to be recognized by members of the community, such as Dr. and Mrs. John Milholland, for his keen mind and many talents. They believed Carver should go to college. Previously denied enrollment at Highland College because he was an African-American, Carver was reticent to apply. However, the Milhollands were persistent and George Carver, after walking from Winterset to Indianola, was welcomed to Simpson College with a handshake from the College President in 1890.

George Washington Carver enrolled provisionally as an Art Major. He studied piano, voice and other subjects as well. After a short time, he was recognized as a talented artist who also loved to sing and play the piano. Because he loved to take long walks, recording the natural world around him in painting and in word, his art teacher, Miss Etta Mae Budd, urged him to transfer to Iowa State College in Ames, where her father, J. L. Budd, taught horticulture. There, George Carver could pursue a career in science.

Initially, Carver was not as happy as he had been at Simpson College, and reportedly had issues with living accommodations that were resolved. He grew to have numerous friends in the student body and belonged to various organizations. A remarkable collection of all-star faculty members at Iowa State provided Carver with valuable connections in his future career and proved to be lifelong friends (Dr. L. H. Pammel, eminent mycologist and co-author of several articles with Carver; Prof. Henry Wallace, future Secretary of Agriculture and father of Henry A. Wallace, future Secretary of Agriculture and U.S. Vice President; James [Tama Jim] Wilson, future Secretary of Agriculture for Presidents McKinley, Roosevelt and Taft; and Prof. J. L. Budd). Carver was the first African-American student and faculty member at Iowa State College.

George Washington Carver left Iowa in 1896 and took a job at the Tuskegee Institute. He became the most famous faculty member for the revered administrator Booker T. Washington. He employed knowledge and pedagogy from his years in Iowa to teach generations of students and Southern farmers. Because of his research, teaching and selfless concerns for citizens of the world, his reputation became international.

Perhaps one of his most well-documented successes was his 1921 appearance before the U.S. House Ways and Means Committee to secure a tariff on peanuts. A friend of great inventors Henry Ford and Thomas Edison, Carver met numerous U.S. Presidents, received an Honorary Doctorate from Simpson College in 1928 and other prestigious national and international awards. He returned one last time to Iowa in 1941 to give the baccalaureate address for Simpson College at the United Methodist Church.

Synopsis:

PROLOGUE: Winterset, Iowa, 1890

George Washington Carver arrives in Winterset, Iowa, having come north from Missouri and Kansas in search of a better life. He finds supporters and friends, among them Dr. and Mrs. Milholland, who assure a nervous George (who had been denied admission at Highland College for non-academic reasons) that Simpson College will admit him on his talent and merits, regardless of his race.

SCENE 1: Simpson College Art Studio, 1890

With a handshake from the President of the school, George is welcomed to Simpson College where he studies art and music with enthusiasm. Students and friends admire George's many talents and respect his capacity for hard work. He is encouraged by faculty members, among them his art teacher, Miss Etta Mae Budd, who becomes convinced that his talents may be taking him toward a career in science, rather than in the arts. She convinces George to transfer to Iowa State College (now known as Iowa State University) to continue his studies.

ENTR'ACTE: Indianola Town Square, 1891

Miss Budd visits with Mrs. A.W. Liston, one of George's numerous Indianola friends, who has recently returned from a trip to Ames to visit George as he adjusts to a new and larger school. Initial problems with his housing have been solved, and Mrs. Liston is pleased to report that George is progressing well in his new school and degree program.

SCENE 2: Student Union, Iowa State College, 1894

George meets with Mrs. Liston and his fellow ISC students at the Union. They are joined at this graduation party by Dr. L.H. Pammel, who invites George to teach at the College. George leads the party in a song of praise and gratitude.

SCENE 3: United States House of Representatives Ways and Means Committee, 1921

During the intervening years, George has been a faculty member at the Tuskegee Institute in Alabama where he has become an important scientist and much admired advocate for peanuts and other legumes. In 1921, he meets with the Ways and Means Committee to discuss the many uses of the peanut. The Committee is impressed and establishes a tariff on peanuts to protect U.S. farmers.

EPILOGUE: First United Methodist Church, Indianola, Iowa, 1941

George Washington Carver returns to Iowa one last time and speaks at the 1941 Simpson College Baccalaureate service. There he reflects with gratitude upon the opportunities he found as a young man in Iowa.

About the Composer: Composer Michael Patterson has a distinguished 34-year relationship with Des Moines Metro Opera. *A Dream Fulfilled: The Saga of George Washington Carver*, is the second work by Patterson that has been commissioned for OPERA Iowa. In 2003 and 2004, Patterson's *The Tale of Peter Rabbit* was seen by thousands of school children in Iowa and surrounding states. Patterson holds degrees from Simpson College and the University of Iowa as well as a Ph.D. in music education from the University of Oklahoma. Dr. Patterson has served as a music educator in Iowa public schools and is currently an associate professor at Simpson



College. At Simpson, he teaches music education classes, ear training and sight singing, music survey, symphonic and chamber literature, piano lessons, piano literature and supervises elementary student teachers.

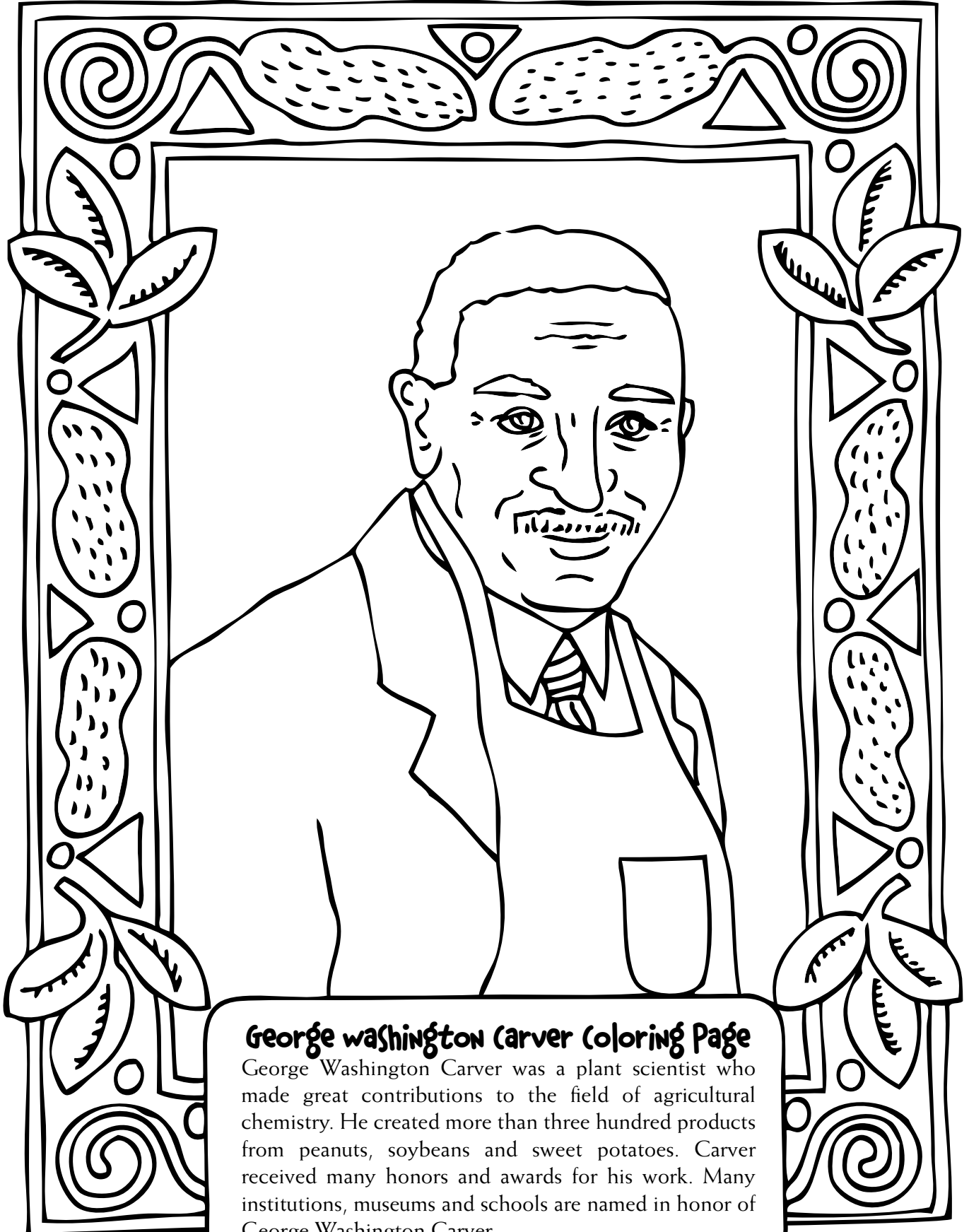
A Dream Fulfilled adds to an impressive catalog of solo song, piano repertory, instrumental pieces and choral works that have received acclaim and generated enthusiasm for performances in festivals, concerts and schools across Iowa and in many other states.

The following are suggestions to help you make the most of your school's experience with the OPERA Iowa troupe. There are also a few requirements listed for the day the troupe arrives at your school.

1. Discuss with the students the libretto, or story, of the opera they will see. A background and synopsis of the opera is enclosed in this TEACHERPAC. The success of the interactive workshops for *A Dream Fulfilled* is enhanced if students are familiar with the story in advance.
2. Discuss the characters:
 - a. How do the students think they will sound, look, act?
 - b. What do they think the set will look like?
 - c. The costumes?
3. Use the OPERA Iowa newspaper and the other TEACHERPAC materials over several class periods to prepare the students for the opera. Help familiarize them with concepts and musical terminology.
4. Arrange for four adults capable of lifting at least 50 lbs. to help unload, set up and reload scenery. This is critical! You may also choose a "crew" of five or six responsible middle or high school students who could help load, unload and be available to help the technical director put up the set. These students need to be able to follow instructions and will not be able to participate in the workshops. These helpers will be carrying large, sometimes heavy, pieces of scenery as well as bulky lighting instruments.
5. Please contact your school maintenance staff and have someone available when the troupe arrives to answer questions about electrical outlets, etc.
6. Assign 2-3 students to be "guides" for the OPERA Iowa troupe members. These students will be responsible for taking the OPERA Iowa artists where they need to go throughout the day, showing them where the classrooms are for workshops, costume changing areas, the lunchroom, school lounge, and where the coffee is located!



*Classroom Activities
About the Life
and Times of George
Washington Carver*



George Washington Carver Coloring Page

George Washington Carver was a plant scientist who made great contributions to the field of agricultural chemistry. He created more than three hundred products from peanuts, soybeans and sweet potatoes. Carver received many honors and awards for his work. Many institutions, museums and schools are named in honor of George Washington Carver.

George Washington Carver's Education

(Grades 5-6)

George Washington Carver was born into slavery, struck with a life-threatening illness, kidnapped, orphaned, and emancipated all before his first birthday. Born in 1864 during the Civil War, Carver and his mother Mary were kidnapped by slave raiders. Their owner, Moses, sent a scout to bring them back but only baby George was recovered. Suffering from whooping cough, he had been left for dead. Illness continued to plague his childhood, leaving him too weak for strenuous labor. George and his brother, Jim, were adopted by their owners, Moses and Susan Carver. Jim worked alongside Moses in the fields while George was given household duties and taught handiworks by Susan.

The Carvers' 240-acre farm was located near the town of Diamond, Missouri. It was there that George began to foster his curiosity for nature, collecting specimens and investigating how natural systems work together. He was so naturally gifted at plant care that local people called him the "Plant Doctor." He learned how to cook, make clothing, dyes, soap, and homeopathic remedies.

George also was a lover of music and the arts. His interest was inspired in part by Moses Carver, who played the fiddle. Both talented and resourceful, music and singing became part of George's many joys. He learned to sketch and paint, fashioning brushes from bunched-together twigs and making colors from boiled bark and berries. George learned how to read from a hand-me-down spelling book, Webster's "Blue Back Speller." He yearned for a formal education but the closest school was for whites only.

In 1877, George left the Carver farm to attend an African-American school in the nearby town of Neosha, Missouri. In 1890, Carver was welcomed as the first black student at Simpson College, where he studied music and art. He was encouraged to transfer to the College of Agriculture at Iowa State College and excelled in his academic studies in science. In 1894, Carver became the first black member of the Iowa State faculty when he was appointed Assistant Professor of Biology.

Activities and Classroom Questions

1. Many historically significant events happened during Carver's life, as well as numerous innovations in science and technology. Begin with the Carver Timeline found in your student newspapers and research important events in that time period. Students could have a conversation with an older friend, relative, or neighbor and ask what major events occurred during his or her lifetime. How did those events change their perception of the world and impact scientific or social advances for Americans?
2. Carver collected rocks, fossils, plants, and other items he found interesting in the natural world. Do you have any collections at home? What are they and why are they important to you? Write a brief paper or make a short presentation explaining the significance of your collection.
3. Carver used plants for many purposes including cooking, dyeing clothing, and making homeopathic remedies. This initial exploration of plants inspired Carver's later work, much of which has impacted our modern world. Spend a week searching for plants and plant products in your home and school. Collect, photograph and share examples. Explore the amazing diversity of plants that color, shape and support your environment.

Guiding Questions for Further Research

1. What were some of the handicrafts Carver learned to make as a child?
2. What are fossils and how are they formed?
3. What musical instruments did Carver play?
4. What did Carver study at Simpson College? Name his teacher there.
5. Why did Carver decide to pursue agricultural science at Iowa State?

Answers to Guiding Questions

1. Weaving, crocheting, knitting, embroidery and sewing.
2. Fossils are the remains or traces of organisms that were once alive. Fossils can include bones, trackways, skin impressions, etc.
3. Accordion, guitar, and the piano.
4. Carver got a diploma from Simpson College where he studied art and music. Etta Budd was the name of his art teacher.
5. One of the reasons Carver wanted to pursue a career in agriculture was because, as he discovered at Tuskegee, it could help serve the needs of poor black farmers.



Simpson College

The People's Scientist

(Grades 3-5)

In 1896, Booker T. Washington invited Carver to head the Agricultural Department at Tuskegee Normal and Industrial Institute in Alabama. Carver accepted the offer, believing he could use the position as an opportunity to alleviate the physical and economic stress of impoverished blacks in the South. His goal was to serve humanity by harnessing the power of nature to help the poor.

The primary idea in all of my work was to help the farmer and fill the poor man's empty dinner pail.

—George Washington Carver in a 1929 letter.

Segregation, violence and economic oppression characterized life for Southern blacks when Washington began building Tuskegee Institute in the 1880s. Tuskegee Institute became a haven where African-Americans could embark on the road to independence. Both Carver and Washington shared the belief that blacks should achieve economic independence before working for political and social equality. Carver encouraged his students to live a self-sustainable existence, much like life on the Carver farm. Students raised their own food, made their clothing and fired their own bricks to build classrooms.

When he arrived at Tuskegee, Carver was shocked to find a meager classroom devoid of lab equipment. Armed with one microscope, his departing gift from Iowa State, he built a laboratory from the ground up by scavenging materials from the junkyard. Carver had a vision to transform the barren grounds of Tuskegee into a lush, green farm. He wanted to see crops flourish and become abundant enough to ensure that people were prosperous, self-reliant and well-nourished.

At his Agricultural Experiment Station, Carver tested different types of plants, soils and farming techniques including crop rotation, composting and fertilization, pest control and the introduction of "soil building plants." He focused on peanuts, sweet potatoes and black-eyed peas, three crop plants that improved soil quality while offering nutritional value for people. Carver understood the relationships between living things and their environments. He became a pioneer for organic gardening as well as other lifestyle choices that we refer to today as "green living."

Activities and Classroom Questions

1. In small groups, have students brainstorm and make household, personal or classroom items out of recycled goods. What are the benefits of recycling and reusing items for a different purpose?
2. Make a soil station at your school. Grow plants, conduct experiments, compost and make records of the factors and changes occurring in your living soil station.
3. Conduct some research as to why Carver's work was especially crucial in the South. What was farming like before his arrival? Why was cotton such a fixture in the South? How does cotton growth affect soil? How and why did this industry die out?
4. Many of the innovative agricultural practices that Carver developed would today be referred to as "green" or "organic" farming. What are the principles of organic farming and why do some prefer these over conventional farming practices? Research local farmers, retailers and companies that grow and sell organic goods. Where are they located? Do you use any "green" products at home?

Guiding Questions for Further Research

1. What were some of the challenges blacks in the South faced at the time Carver moved to Tuskegee in the 1890s?
2. Why did some of the faculty at Tuskegee Institute resent Carver?
3. What is "applied science" and what are its benefits?
4. What are some of the methods Carver used to save Southern soil?
5. What is sharecropping? Was this an equitable approach to farming?
6. What is mycology and how was it used by Carver?

Answers to Guiding Questions

1. Blacks in the South faced segregation, violence and economic oppression long after the Civil War ended.
2. Carver aroused resentment and suspicion because he wasn't from the South, was educated at a white university, had a higher salary and demanded special treatment in some faculty members' opinions.
3. "Applied science" is the application of knowledge from one or more natural scientific fields to practical problems such as hunger, disease, natural resource management, etc.
4. Carver used crop rotation, composting, fertilization, pest control and the introduction of soil building plants as methods to repair Southern soil.
5. Sharecroppers worked a section of someone else's land in exchange for a percentage of the harvest. They often had to borrow against their share to get by until harvest time so it was not unusual for debt to exceed earnings. This bound the sharecropper to the farmer until the debt was paid off.
6. Mycology is the study of fungi. Carver did extensive research on fungal plant diseases.



Tuskegee Institute

Plant Power

(Grades 4-6)

Carver wanted to highlight the economic potential of alternative crops but first he had to identify which plants would be the most effective. He began research on plants that would later make him famous: peanuts, or goobers as they were often called. He unleashed the potential uses of sweet potatoes and soybeans, and inspired a movement that has renewed importance today—developing agricultural alternatives to petroleum products.

I believe the Great Creator has put oils and ores on this earth to give us a breathing spell... As we exhaust them we must prepare to fall back on our farms. For we can learn to synthesize materials for every human need from the things that grow.

—George Washington Carver

Carver's chemistry was extraordinary in its creativity and humanitarian applications. He joked about being a "cook stove chemist." In 1910, Tuskegee Institute promised Carver a fully equipped laboratory to continue his work. Carver used a variety of different processes and equipment to break test plants into component parts which he later recombined to make diverse products.

Carver's chemistry creations resulted in hundreds of new uses for peanuts, sweet potatoes and soybeans. While Carver's scientific approach may have been unique at the time, many cultures throughout the world and throughout history have relied heavily on plants to make food, medicine, clothing, shelter and other products. The study of how various cultures use local plant resources is called "economic botany."

Activities and Classroom Questions

1. Have students cut out product labels at home to see if the products they use are made from peanuts, sweet potatoes, or soybeans. What are some of the products that use those plant items as a base ingredient? What other modern products use corn and sugar beets as a base in their manufacture?
2. What was the World's Colombian Exposition of 1893? Look up the history and variety of events and collections displayed at that exposition. What was the purpose of this event? How were different cultural ideas displayed? How were scientific ideas presented?
3. Write a short paper or conduct a short presentation on a company that practices chemurgy. What are their motivations for using biodegradable, recycled and environmentally friendly products? What are the positive impacts these companies are having on both the environment and consumer industries as a whole?

Guiding Questions for Further Research

1. List some of the items found in Carver's laboratory.
2. What are the component parts into which Carver broke the plants in his laboratory?
3. What is "economic botany"?
4. What are some of the products that Carver produced from peanuts? Sweet potatoes? Soybeans?
5. What is the "chemurgy movement" and what are its goals?
6. What are some plant-based products produced by companies today?

Answers to Guiding Questions

1. Rolling pin, black pot and lid, mortar and pestle, copper bulb, Bunsen burner, pressure gauge, ringstand with clamp, brass bulb with glass tube, double globe beaker, glass flask, extracting tube, distilling apparatus, conical distiller, distilling flask, test tubes, jars filled with specimens, red grinder, hydraulic press.
2. Carver broke plants down into fats, proteins, water, sugars, acids and starches.
3. Economic botany is the study of how people of a particular culture or region make use of local plants for food, medicine, household items and other products and building materials.
4. Answers will vary. (See list below.)
5. The "chemurgy movement" creates industrial products, like plastics and bio-fuels, from agricultural materials. These products cut down on the amount of non-renewable resources consumed; many of the products are biodegradable as well.
6. Biofuels, water bottles, plates and utensils, building materials, roofing membranes, newspaper inks, art supplies, cleaning products.

BEVERAGES	DYES, PAINTS AND STAINS	Chop Suey sauce	Peanut meal	GENERAL
Blackberry punch	Dyes for cloth	Cocoa	Peanut and popcorn bars	Axle grease
Evaporated peanut beverage	Dyes for leather	Cooking oil	Peanut relish	Charcoal from shells
Cherry punch	Paints	Cream candy	Peanut sausage	Cleaner for hands
Peanut beverage flakes	Wood stains	Cream from milk	Peanut Surprise	Diesel fuel
Peanut lemon punch	Special peanut dye	Crystallized peanuts	Peanut tofu sauce	Fuel briquettes
Peanut koumiss beverage		Curds	Peanut wafers	Gasoline
Peanut orange punch	STOCK FOODS	Dehydrated milk flakes	Salad oil	Glue
Peanut punch	Hen food for laying	Dry coffee	Salted peanuts	Illuminating oil
	Molasses feed	Flavoring paste	Shredded peanuts	Insecticide
COSMETICS	Peanut hay meal	Golden Nuts	Substitute asparagus	Insulating boards
All-purpose cream	Peanut hull bran	Instant coffee	Sweet pickle	Linoleum
Antiseptic soap	Peanut hull meal	Lard compound	Vinegar	Lubricating oil
Baby massage cream	Peanut meal	Malted substitutes	White pepper	Nitroglycerine
Face bleach and tan remover	Peanut stock food	Mayonnaise	Worcestershire sauce	Paper
Face cream		Mock goose		Printer's ink
Face lotion	FOODS	Mock chicken	MEDICINES	Plastics
Face ointment	Bar candy	Mock oyster	Castoria substitute	Rubber
Face powder	Breakfast food	Mock veal cutlet	Emulsion for bronchitis	Shoe and leather blacking
Fat producing cream	Bisque powder	Oleomargarine	Goiter treatment	Sizing for walls
Glycerine	Buttermilk	Pancake flour	Iron tonic	Soap stock
Hand lotion	Butter from peanut milk	Peanut bar	Laxatives	Soil conditioner
Oil for hair and scalp	Caramel	Peanut bisque flour	Medicines similar to castor oil	Wall boards
Peanut oil shampoo	Cheese cream	Peanut brittle	Rubbing oil	Washing powder
Pomade for scalp	Cheese nut sage	Peanut butter	Tannic acid	Wood filler
Shampoo	Cheese pimento	Peanut cake		Laundry soap
Shaving cream	Cheese sandwich	Peanut fudge		Sweeping compound
Soap	Cheese Tutti Frutti	Peanut Dainties		
Vanishing cream	Chili sauce	Peanut flakes		
	Chocolate-coated peanuts	Peanut flour		
		Peanut Hearts		
		Peanut Kisses		

Carver's Legacy

(Grades 5-6)

While no single history-altering invention or process can be attributed to him, Carver leaves a powerful scientific legacy. His genius was in his application of science to practical purposes. Ecology, conservation, ethno-botany, bio-engineering and biological product development are disciplines that carry on Carver's tradition.

In 1921, Carver was invited to address the U.S. House of Representatives in favor of a peanut tariff protecting American peanut farmers. His presentation was so captivating that it gave him the reputation of "The Peanut Man." Exaggerated claims about his discoveries circulated and his work became legendary. Although the press was not always accurate, it served to draw attention to Tuskegee and Carver's work there.

Carver began touring and speaking not only in favor of his research but as a voice in the fight to promote racial harmony in the South. Jim Crow laws passed in the 1890s kept Carver from riding on the same trains, dining in the same restaurants and using the same restroom facilities as the crowds he addressed.

Where there is no vision, there is no hope. —George Washington Carver.

Carver was honored with numerous awards, tributes and memorials. In 1941, the George Washington Carver Museum was dedicated at Tuskegee Institute. He was also the first African-American and the only non-president to have his birthplace honored as a national monument. Carver devoted his life to finding solutions for hunger, poverty, illness, environmental devastation and dependence on fossil fuels. His "Mighty Vision" serves as an inspiration for all who hope to improve life on Earth.

Guiding Questions

1. Name some scientific fields that have been influenced by Carver's research.
2. Why did Carver address the U.S. House of Representatives in 1921?
3. What is significant about the Carver National Monument?

Answers to Guiding Questions

1. Ecology, conservation, ethnobotany, bioengineering and biological product development are all areas that have been influenced by and carry on the Carver tradition.
2. Carver spoke at a House of Representatives meeting in favor of a proposed tariff that would protect American peanut farmers from foreign competition.
3. Carver is the first African-American and the only non-president to have his birthplace honored as a national monument.

George Washington Carver Words to Know

AGRICULTURE	The science, art or occupation concerned with cultivating land, raising crops and feeding, breeding and raising livestock; farming.
APPLIED SCIENCE	The discipline dealing with the art or science of applying scientific knowledge to practical problems.
BIODEGRADABLE	Capable of being decomposed by biological agents, especially bacteria.
BIODIVERSITY	The variety of organisms considered at all levels, from genetic variants belonging to the same species through arrays of species; includes the variety of ecosystems, which comprise both the communities of organisms within particular habitats and the physical conditions under which they live.
BIOENGINEERING	The branch of engineering that deals with applications of biological processes to the manufacture of products.
BIOLOGY	The science of life and of living organisms, including their structure, function, growth, origin, evolution and distribution. It includes botany and zoology and all their subdivisions.
BIOTECHNOLOGY	The use of living organisms or other biological systems in the manufacture of drugs or other products or for environmental management, as in waste recycling.
BOTANY	The science, or study, of plants.
CHEMISTRY	The science that deals with the composition and properties of substances and various elementary forms of matter.
CHEMURGY	A division of applied chemistry concerned with the industrial use of organic substances, especially substances obtained from farm produce, such as soybeans or peanuts.
COMPOST	A mixture of decaying organic matter, as from leaves and manure, used to improve soil structure and provide nutrients.
CONSERVATION	The careful utilization of a natural resource in order to prevent depletion; the protection, preservation, management, or restoration of wildlife and of natural resources such as forests, soil and water.
CULTIVATION	The agriculture production of food by preparing the land to grow crops, especially on a large scale.
CROP ROTATION	The successive planting of different crops on the same land to improve soil fertility and help control insects and diseases.
DISTILLATION	The purification or concentration of a substance, the obtaining of the essence or volatile properties contained in it, or the separation of one substance from another, by such a process.
ECOLOGY	The branch of biology dealing with the relations and interactions of organisms with their environment, including the physical environment and the other organisms living in it.
ECOSYSTEM	The organisms living in a particular environment, such as a lake or forest, and the physical part of the environment that affects them. The organisms alone are called the community.

ETHNOBOTANY	The plant lore and agricultural customs of a people.
GEOLOGY	The study of the earth—past and present—and the processes that shape it.
HORTICULTURE	The cultivation of a garden, orchard or nursery; the cultivation of flowers, fruits, vegetables or ornamental plants.
HUMANITARIAN	Having concern for or helping to improve the welfare and happiness of people. A person actively engaged in promoting human welfare and social reforms, as a philanthropist.
JESUP WAGON	A wagon outfitted with display charts, agricultural products and equipment that served as a "moveable school" with which Carver spread agricultural knowledge to Alabama farmers.
MYCOLOGY	The branch of biology dealing with fungi.
PREJUDICE	Unfavorable opinion or feeling formed beforehand or without knowledge, thought or reason.
SEGREGATION	The policy or practice of separating people of different races, classes or ethnic groups, as in schools, housing and public or commercial facilities, especially as a form of discrimination.
SHARECROPPING	A system of farming that developed in the South after the Civil War when landowners, many of whom had formerly held slaves, lacked the cash to pay wages to farm laborers, many of whom were former slaves.
SLAVERY	The state of one who is bound in servitude as the property of a slaveholder or household.
SYNTHETIC	Noting or pertaining to compounds formed through a chemical process by human agency, as opposed to those of natural origin.



Jesup wagon

Narrative
Lesson Plans
about Opera

Opera Made Simple

Introduction to the basic concepts about opera for students K-8

As you know, we have OPERA Iowa scheduled to come to our school to perform *A Dream Fulfilled*. Before they come I thought we could talk a little bit about what makes opera different from other types of entertainment. What do you think it resembles? (A musical, a Disney film, music videos, etc.) What do all these things have in common? Music, of course.

Opera does resemble these other types of productions, but there are interesting differences, too. Opera has been around for a long time, since 1594 AD. People who write operas (composers), those from many years ago and those who write today, have one thing in common. They want to take special, or sometimes even ordinary, ideas from everyday life and write a story about it ... but what makes it opera?

Operas are made up of many ingredients, like recipes. Each ingredient may be good by itself, but gets even better when they are all put together. Can someone name a favorite dish or recipe that would demonstrate what I'm talking about? (i.e. take ice cream add chocolate, nuts, whipped cream, cherries, etc.)

So what are these interesting ingredients that make up an opera? Can you help me write a top 10 list of ingredients that make up an opera?

1. A good story idea (simple or complex)
2. Beautiful, singable melodies or tunes
3. Talented singers
4. Well-acted telling of the tale
5. Beautiful or effective scenery or sets
6. Scenic, magical stage lights
7. Realistic or imaginary costumes
8. Stage make-up
9. An effective accompaniment (piano or orchestra)
10. An exciting chorus

Very good, but after all this, can we say what specifically an opera is?

Opera: A story told in song and in action, on stage, that is performed by individuals and sometimes a group of people called a chorus. Most operas have orchestral accompaniment made up of various instruments or sometimes they are accompanied by piano alone. Does that still sound like a musical?

Opera is different in two special ways:

1. Operas are mostly all sung with very little talking. Opera singers sometimes use 'recitative' (an Italian word meaning to recite) to help move the story line along.
2. The artists who sing opera have specially trained voices that can sing a wide range of notes. They also can project their voices over a piano or even an orchestra so they don't need microphones in order to be heard. (Remember, opera began long before electricity was discovered so early opera singers didn't have microphones.)

When people first began writing operas, they thought that telling a story in action and in song would be the most exciting way possible to entertain an audience like you. An opera asks us to use our imagination and do things we don't ordinarily do. HOW?

1. Do people sing all day every day?
2. Do we wear special costumes daily?
3. Do we speak in rhymes?
4. Do we live in rooms with 2 or 3 walls and no ceiling?
5. Does a piano or orchestra accompany us?
6. Do we stop and tell everyone our feelings?
7. Do we dribble a basketball everywhere?
8. Do pep bands accompany every goal we make in life?
9. Will Superman rescue us from a fall?
10. Do all bad people dress in black?

For most of us, our favorite way to relax is to use our imagination. It allows us to dream and create a fun make-believe life that goes along with our everyday life...opera is just another way for us to use our minds, to relax and to be entertained.

The OPERA Iowa troupe has given us some basic definitions that will help us understand even more what an opera is all about:

1. **Aria**—a song that tells a story or feelings of the character, sung by one person. When you see *A Dream Fulfilled*, watch for the artists who sing arias, as they are the main characters.
2. **Recitative**—the artists "speak on pitch" to tell a story as quickly as possible. The opera *A Dream Fulfilled* has some spoken words and some recitative. Can you tell the difference?
3. **Overture**—music that comes before something larger, setting the mood. The overture in *A Dream Fulfilled* helps to set the mood for the opera.
4. **Duet, trio or quartet**—2, 3, or 4 people singing together. *A Dream Fulfilled* has many of these musical moments. Try to remember two of them.
5. **Chorus**—acts like an everyday crowd of people. They sing and act while commenting on the action of the main characters. *A Dream Fulfilled* cast is small so they also act like chorus members sometimes. In a big opera, the chorus can sometimes consist of as many as 150 people!

We're excited that the OPERA Iowa troupe is coming to our school to present *A Dream Fulfilled*. Now that we know a little bit more about what makes it an opera, you'll have more fun in the workshops and at the performance.



Who Makes Opera Interesting?

Now that we know what makes opera different from other types of musical performances, let's look at all the different kinds of people it takes to put on an opera.

The People You See:

Singers Instrumentalists Dancers Conductors

What different training would each of these people need before they could perform for you?

Most performers are college graduates who have spent many years studying and practicing their particular area of interest. (Talk about what each performer might do.)

A singer's "instrument", however, is his or her voice. A singer needs excellent vocal training and they must remain healthy in order to perform frequently and in such demanding roles. Even though you can't see their instrument, they need to practice every day to keep their voice in shape, the same way a dancer or an athlete exercises their muscles each day to stay in shape.

They also need extensive stage training to be good actors who create believable characters. They often learn to do their own make-up (especially on tour), dance in many different styles, sing in different languages, and learn stage combat to make fake fights look real ... all to help create that special character you'll enjoy watching.

The People Behind the Scenes:

Can people who are not great singers participate in opera? Yes! Think of all the other elements of opera.

Set Designers—Create the drawings and plans from which the carpenters build the scenery.

Carpenters—Enjoy working with their hands to build the scenery.

Painters—Use paint as a tool to make you believe that what you see is real. For example, painting bricks on a flat (the walls of a set) or painting trees on a stage drop (a large piece of canvas that hangs behind a set).

Electricians—Do all the wiring to make the stage lights work to create the right mood, time of day, or special effect.

Wig & Make-up Artists—Transform the singers into their characters by designing special wigs and make-up for each artist.

Costumers—Design and sometimes sew the costumes for the artists.

Props staff—Find all the special things that make the set look real: the right book, candle holder, mirror or any other item including furniture that the performer might use.

The Business People:

Opera is a business just like any other. These are some of the types of people who work for an opera company:

Executive Director—Organizes all the activities of the opera company.

Artistic Director—Decides which operas are to be performed and hires the singers.

Box Office staff—Take ticket orders.

Educational staff—Create programs that teach about opera, such as OPERA Iowa.

Production staff—Hire and organize “the people behind the scenes”.

Marketing & P.R.—Lets the public know what programs and events are happening at the company.

Accountant—Pays the bills of the company.

Development—Raises donations to support the programs and services the company provides.

Graphic Designer—Designs all the newsletters, brochures, posters, etc. that are seen by the public.

The Volunteers:

Board of Directors—Help raise money for the company and are goodwill ambassadors for opera in the community.

Guild Members—Support the company by hosting a variety of special events.

Ushers—Help seat people at performances and hand out programs.

Supers/Extras—Perform non-singing roles in an opera. They get to be on stage in a great costume to help create the “feel” of the opera.

We’ve left out a very important part of opera. Can you guess? IT’S YOU, the audience!

What is the audience’s responsibility?

1. Preparing ahead of time by reading the story of the opera and listening to some of the music.
2. Thinking about the characters and what’s happening to them on stage.
3. Listening to the words and the music.
4. Watching and enjoying the show.
5. Applauding the performers at the end.

Do you know what word is used to let the singers know if they’ve done a very good job? It’s an Italian word “Bravo!”—if you enjoy OPERA Iowa’s performance, not only can you applaud at the end of the opera, but you can also shout “Bravo!”

Students, now can you see why opera interests so many different kinds of people?

The performers, the people behind the scenes, the business people, the volunteers and the audience. It takes many people with different interests and skills to put on an opera ... all of which make the production a wonderful experience for audience members. Each of us has different talents . . . ask yourself, in which one of these special areas of opera production am I interested? People who begin to look at opera through their special area of interest will likely find themselves much more interested in the whole opera experience. If you like being part of an exciting production, there could be a place for you in opera!

Setting the Stage

We've already looked at what makes opera different from other musical forms and we've talked about all the different kinds of people it takes to put on an opera. Today we're going to talk about how to set the stage for opera.

What are the four main ways that stage "magic" can be created?

Make-up:

Stage make-up is used to:

- look your own age
- look older
- look younger
- look happy, sad, mean, nice
- look like a creature or animal

Which kinds of make-up do you think will be used in *A Dream Fulfilled*? Why?



Scenery:

Sets or scenery are used to create a location that can be something real or imagined. Sets can be rented from other opera companies or built especially for your own company. *A Dream Fulfilled* set was built just for OPERA Iowa.

Some types of set materials used are:

- wood
- metal
- canvas
- foam
- plastic

There is "hard" scenery such as complete buildings or just "flats" (only one side of a structure) made of wood, and there is "soft" scenery which are large pieces of canvas called "drops" on which scenery is painted such as trees, the sky, or distant buildings. Scenic painters can work magic with their paint brushes and make wood look like stone or brick, give a flat surface dimension or create a rough texture out of a smooth one.

Lighting:

As the stage lights shine on the painted materials, they bring exciting new depths to colors.

Lighting enhances:

- the costumes
- the make-up
- the props

Continued on next page...

Lighting can make everything bright and cheerful or dark and stormy. Lighting will tell you the time of day and often help you understand how a character is feeling. Lighting can cast shadows to create hiding places and movement on the stage with spot or strobe (flashing) lights. Lighting instruments come in lots of shapes and sizes. The instruments can be hung on vertical poles, horizontal pipes, or even set directly on the floor. The instruments use special lights and bulbs with extra power so they can be very bright. The instruments are controlled by "dimmers", similar to light switches in your home. They turn each instrument on, off, or slowly fade the light in and out.

To create the different colors, a material called "gel" is inserted over the bulb. Gel looks like colored cellophane, but got its name from gelatin (Jell-O) ... the substance from which the first gels were made. Guess what happened when the gelatin got hot from the lights?

A good lighting designer can make magic with lighting effects. OPERA Iowa travels with a small lighting system. As you watch the performance of *A Dream Fulfilled*, remember to watch for special lighting effects.

Costumes:

Costumes help the singer/actors become other people.

These costumes may:

- a. be rented or "built" (sewn) new
- b. already be old or made from new materials
- c. be expensive or very cheap
- d. be very heavy (sometimes 100 lbs) or very light
- e. be plain black or very colorful
- f. be complete outfits or just a hat, scarf, cape, etc.
- g. turn the performer into a creature or animal
- h. be adjustable for people of different sizes
- i. change the shape of the performer

What do you think the costumes for *A Dream Fulfilled* will look like? (Have the students draw a picture of how they imagine the characters in *A Dream Fulfilled* will look.)

Make-up, scenery, lighting and costumes are the essential ingredients needed to create a magical stage picture. When you watch OPERA Iowa's production of *A Dream Fulfilled*, you'll see how these ingredients come together to turn our (gym, cafeteria, etc.) into a perfect setting for this opera.

Making Connections

Operas, or any theatrical production, can be connected to other learning activities during a school day. These need not be limited to just music class. Read further for ideas on how to connect art, geography, history, science, language arts and health and safety to opera. Create your own connections, too!

Art—Opera includes lighting design, costume, wig and make-up design, scenery and character creation. Why are certain choices made? Encourage individual visual interpretations of the characters in the story before the students watch the performance. After the students hear the synopsis, have them make quick sketches showing their ideas. Discuss choices in design, color, shapes, etc. What emotions do their characters portray? How do the characters interact?

Geography—Operas have been written by people from many different countries. Explore and discover the origin of famous composers and librettists. Make out a list of 20 composers and have students select one or two and give a short written or oral report on them. Have them consider what would change if the storyline of a given opera was moved to different locations. How do the customs, language and characteristics of people change the way a story is told?

History—Opera is rich with historical possibilities. Play an historical game which involves designing the opera your students will see for several different time periods. What would George Washington Carver do today if he wanted to patent an invention? How would Carver begin his research today?

Science—Why do a piano and a trumpet sound differently even when they play the same note? The concept is TONE COLOR. Explore the sounds created when materials vibrate at a variety of frequencies. Do you hear one pure tone or many "overtones?"

Language Arts—An opera spelling list compiled from this TEACHERPAC could be made and studied one week before the performance. Diction, phonics, projection, memory and language are all basic to opera. How do stories, fairy tales and myths develop and change? Play the "Gossip" or "Telephone" game and see what happens to a sentence as it is whispered from the first person to the second on to the end of ten or fifteen students. Are the first and last sentences the same? When stories are written in one language and translated into another language, what changes might occur? In theatre, actors build characters, giving the role a personality...a voice, a way of talking or singing, a way of walking and reacting. Build characters in class from imagination, literature and history.

Health and Safety—Singers must stay in great health. Their "instruments" are their bodies and more specifically their voices. It takes great stamina to sing a three hour opera - the same kind of energy and discipline required to play football, basketball, or be a good skater. Opera singers are often required to move quickly around a stage, engage in an active sword fight, jump up and down stairs and then sing without sounding breathless! Have your students engage in brisk physical exercise and then see how it affects their breathing and their ability to sing.

Opera Tradition

An opera, like a play, is a dramatic form of theatre that includes scenery, props and costumes. However, in opera, the actors are trained singers who sing their lines instead of speaking them, and are accompanied by an orchestra. A conductor coordinates both the singers on stage and the instrumentalists in the orchestra pit.

Opera consists of many dimensions that are combined to make it a unique whole: the human voice, orchestral music, the visual arts (scenery, costumes and special effects), drama (tragedy and comedy), and occasionally dance. The melding of these elements can produce tears of joy or sadness, create laughter or anger, but most importantly transport you to another land of song and music.

Opera originated in Florence, Italy, in the late 1500s, with a small group of men who were members of a "Camerata" (Italian for "society"). The intellectuals, poets and musicians of the Camerata decided they wanted words to be a featured aspect of music. They used ancient Greek drama as their inspiration, including the use of a chorus to comment on the action.

The Camerata laid down three principles for their new art form:

—The text must be understood; the accompaniments must be very simple and should not distract from the words.

—The words must be sung with correct and natural declamation, as if they were spoken, and must avoid the rhythms of songs.

—The melody must interpret the feeling of the text.

The first significant composer to fully develop the ideas of the Camerata was Jacopo Peri (1561-1633) whose opera *Dafne* was performed in 1594 and is regarded as the first opera.

Operas are divided into scenes and acts that contain different types of vocal pieces for one or many singers. An aria is a vocal solo that focuses on a character's emotions rather than actions. A recitative is sung dialogue or speech that occurs between arias and ensembles.

Composers write the score or the music for the opera. Sometimes the composer will also write the text of the opera, but most often they work with a librettist. The story of the opera is written as a libretto, a text that is easily set to music. In the past, the libretto was also bound and sold to the audience. Today, the audience can easily follow the plot with the use of Supertitles. Supertitles are the English translation of the libretto projected onto a screen above the stage.

Many people question the difference between an opera and a musical like *Les Misérables* or *The Phantom of the Opera*. There are many differences. For instance, the musical style of opera is usually classical and complex, while musicals feature pop songs and sometimes rock and roll. Also, singers in musicals have microphones hidden in their costumes or wigs to amplify their voices. The voices of opera singers are so strong that no amplification is needed—even in a larger venue. Furthermore, operas are almost completely sung, while the use of spoken words is more common to musicals. It is interesting to note, there are some operas with spoken words and these are called singspiels (German) and Opera-Comique (French). Examples are Mozart's *The Magic Flute* and Bizet's *Carmen*.

Composers and Their Works

This is a listing of a few well-known composers and some of their works.

BORN - DIED

- 1567-1643 Claudio Monteverdi
The Coronation of Poppea
- 1685-1759 George Frederick Handel
The Messiah, Julius Ceasar
- 1685-1750 Johann Sebastian Bach
composed many pieces of Baroque music
- 1756-1791 Wolfgang Amadeus Mozart
The Marriage of Figaro, Così fan tutte, The Magic Flute and Don Giovanni
- 1770-1827 Ludwig van Beethoven
Fidelio and many symphonies and sonatas
- 1792-1868 Gioacchino Rossini
The Barber of Seville, La Cenerentola
- 1797-1848 Gaetano Donizetti
Lucia di Lammermoor, Don Pasquale and The Elixir of Love
- 1809-1847 Felix Mendelssohn
Elijah and many other oratorios
- 1813-1901 Giuseppe Verdi
Falstaff, La Traviata, Aida and A Masked Ball
- 1813-1883 Richard Wagner
The Flying Dutchman and The Ring Cycle
- 1819-1880 Jacques Offenbach
The Tales of Hoffmann and Orpheus in the Underworld
- 1826-1864 Stephen Foster
Oh! Susanna and My Old Kentucky Home
- 1858-1924 Giacomo Puccini
La Bobeme, Tosca and Turandot
- 1864-1949 Richard Strauss
Salome and Der Rosenkavalier
- 1898-1937 George Gershwin
Rhapsody in Blue and Porgy and Bess
- 1913-1976 Benjamin Britten
Peter Grimes, Gloriana and A Midsummer Night's Dream
- 1918-1990 Leonard Bernstein
Candide and West Side Story

Operatic Words to Know

A CAPELLA	Without accompaniment.
ALLEGRO	A fast tempo.
ARPEGGIO	A scale that skips every other note.
ARIA	An extended vocal solo, usually a showpiece for the singer in an opera.
BEAT	In music, a regular pulse, or unit of time.
BRAVO	Audience members shout this approval meaning "well done". BRAVA may be used if the performer is female, or BRAVI if intended for more than one artist, but BRAVO as an exclamation is appropriate for all occasions.
BLOCKING	The basic movement pattern of the performers on stage.
CHAMBER MUSIC	Pieces for a small but varied group of instruments, each playing an individual part.
CHORUS	A group of singers who sing and act together; also a piece of music sung by such a group of singers.
CHORUSMASTER	The leader of the chorus.
COLORATURA	A highly decorative singing style with many flourishes, trills and complex figures woven around it, usually for the soprano voice.
COMPOSER	One who creates musical works.
CONCERTO	A piece often in three movements for a solo instrument and orchestra, intended to show off the soloist's technique. They are usually for piano or violin, but Mozart wrote for some wind instruments, too. The first and third movements are fast and the middle one slow.
CONDUCTOR	One who leads and coordinates a musical ensemble.
COUNTERPOINT	Note against note. A style of music in which more than one melody can be heard at a time.
CRITIC	One who describes and analyzes artistic works and performances, also judging their merits and faults.
DUET	A piece for two instruments or voices.
ENSEMBLE	Together. The delicate quality of singing together in tonality and emotional contact.
FINALE	The ending. Usually a grand scene involving some recapitulation of the music and action, and involving as many members of the cast as possible.
FORTE	Loudly.
FORTISSIMO	Very, very loudly.
FERMATA	A note that is held one and a half times its normal length, the second to the last note of an aria.

Continued on next page...

GESTURE	A movement of the limbs or bodies of the characters. Gesture helps the music explain the inner feelings of the characters.
GRAND OPERA	Opera in the grand manner, signified by grandeur and size in cast, orchestra and sets.
HARMONY	Two or more tones (vocal or instrumental) sounding at the same time.
LIBRETTIST	Author of a libretto.
LIBRETTO	The text of an opera (the Italian word for <i>little book</i>).
MINUET	A courtly graceful dance, used for short piano pieces or as one section of a symphony.
OPERA BUFFA	A comic opera with elements of farce.
OPERA SERIA	A dramatic opera, usually dealing with serious or historical subject matter.
OVERTURE	An instrumental introduction, that often makes use of thematic material from the body of a work.
PIANO	Softly.
PRIMA DONNA	"Leading Lady" in opera, or the characteristic of considering oneself the chief soprano.
PROPS	Articles, other than costumes or scenery, used as part of a dramatic or operatic production (short for PROPERTIES).
QUARTET	A piece of chamber music for four instruments or voices.
QUINTET	A piece of chamber music for five instruments or voices.
RECITATIVE	A style of singing designed to be similar to the natural inflections of speech.
SCENE	The surroundings or location where the action takes place; also a subdivision of an act.
SCORE	The pages upon which all the vocal and instrumental music of an opera is written.
SERENADE	A piece for instruments or orchestra in many movements, intended to be played outdoors for evening entertainment.
SINGSPIEL	Song-play. An opera in German with spoken dialogue between the songs.
SONATA	A piece for one or two instruments in several movements.
SYMPHONY	A large scale orchestral piece, usually in four separate movements. The first and the last are usually quick, the second slow, and the third is often a minuet.
SYNOPSIS	A short summary of the opera's story.
THEME	A central melody in a piece of music. In opera, a theme may be associated with a particular character, setting, object, or emotion.
TIMBRE	Tone quality or tone color of a voice or instrument.
TRIO	A piece of chamber music for three instruments or voices.
VIBRATO	Vibrating. Slight and rapid fluctuations in pitch. The quality that produces warmth in the human voice.

Attending an OPERA Iowa Performance

Let's take a look at what traditions are associated with audience behavior:

Listening—At performances of artistic music (symphonies, operas, ballets, etc.), it is especially important to be very quiet. Talking, whispering, rustling programs, or even coughing while the music is being performed is very distracting to other audience members and to the performers. Help everyone enjoy the performance by being on your best listening behavior.

Applauding—As for applause, the performers love it. During the opera, applause is appropriate after duets, solos, and choruses. Sometimes the verbal cheer "Bravo!" is appropriate if you think the performer has done an extra good job. Feel free to show your appreciation of the performers with enthusiastic applause.

Recognizing the Artists—Following the performance, each singer is recognized again as they take a bow. The conductor (for OPERA Iowa, this person is called the Music Director) is also given special treatment at an opera performance. He or she is the last to be acknowledged and is also applauded by the audience and often the artists as well. If an orchestra is used, the conductor will acknowledge the orchestra members by shaking the hand of the first chair violinist, who is referred to as the concertmaster. Individual members of the group are asked to stand and are acknowledged by applause if they played an important part especially well. Quite often the entire group is asked to stand.

Programs—Most performances have a printed program listing the music to be performed, usually given to you when you enter the hall. An opera program looks like the program from a play, with a list of acts and scenes, and a short phrase about the setting, the time and place of the opera. Opera programs often contain a synopsis of the story.

What to Wear—The tradition that members of the audience wear tuxedos and long dresses to music performances has long since passed in most places. As an audience member, you should feel comfortable about what you are wearing. For evening concerts, a coat and tie or a dressy outfit is just fine to wear.

Knowing what is expected of you as an audience member before you attend an opera will make the experience truly enjoyable.



*Des Moines
Metro Opera
History*

Our History



DMMO's offices are located in the historic Carnegie building in Indianola.

Now celebrating our 38th season, Des Moines Metro Opera was founded in 1973 by Maestro Robert L. Larsen, the Company's Artistic Director, and the late Douglas J. Duncan, who was named Managing Director. The early success of the Company is a tribute to the visionary leadership of these two men. In recognition of his artistic leadership, Maestro Larsen was awarded the prestigious Iowa Arts Award by the Iowa Arts Council.

In the Company's early years, staff consisted primarily of volunteers—opera-lovers who gave freely of their time and talent—so that the meager budget of \$22,000 could be invested in the productions. But as

productions and budgets grew, so did the need for a professional staff. In 1976, Jerilee Mace joined the company as an assistant to Mr. Duncan. In 1988, following Mr. Duncan's unexpected death, Ms. Mace was named to the position of Executive Director. In 2005, when Ms. Mace announced her retirement after 30 years of service, a nationwide search was undertaken to find her replacement. That search culminated in the appointment of Thomas Smith as the Company's Executive Director and CEO, who served until the position was restructured in 2009. Robert Montana now serves as the Managing Director and Michael Egel as the Director of Artistic Operations.

Over the past three and a half decades, Des Moines Metro Opera has grown from what was once regarded as a "\$22,000 project" into one of the nation's most renowned regional opera companies. With an annual budget of \$2 million, DMMO now ranks as one of the largest performing arts organizations in Iowa.

The James M. Collier Apprentice Artist Program was initiated in 1975. This Summer Festival program provides talented young American artists a coveted opportunity to gain professional experience in an educational environment. Each year 40 young singers are selected from hundreds of nationwide auditions to participate in this tuition-free program. The seven-week program includes classes in all aspects of the professional development of an opera singer.

Apprentice Artists work with professional coaches and directors on scenes and one-act operas which they perform in free public concerts each season. The apprentice program is an invaluable resource to the Company, as well as to the artists involved. In a beneficial reciprocal arrangement, apprentices receive seven weeks of intensive, comprehensive operatic training while the Company receives the benefit of their combined talents to form the core of its nationally recognized Festival chorus for each season's performances.



World-renowned baritone Sherrill Milnes gave a series of masterclasses during the 2009 James Collier Apprentice Artist Program.

From 1985 to 1989, DMMO undertook several important initiatives, including expansion of the orchestra pit at Blank Performing Arts Center to accommodate up to 100 musicians, production of the world premiere of Lee Hoiby's *The Tempest*, and the initiation in 1987 of OPERA Iowa.

OPERA Iowa, Des Moines Metro Opera's innovative educational touring troupe, has been tremendously successful and has helped raise the visibility of the Company statewide, nationwide and worldwide. In 1992, OPERA Iowa spent two weeks in Iowa's Sister State in Japan, performing *Sid the Serpent Who Wanted to Sing* for approximately 4,000 students in 10 middle schools and 2 high schools as well as a community concert in Kofu City. In the spring of 2000, OPERA Iowa traveled to Iowa's Sister State in China for a similar residency. OPERA Iowa has also traveled to Minnesota, Arkansas, Wisconsin, Kansas, Michigan, Illinois, Missouri and Montana. Each year OPERA Iowa performs for approximately 25,000 to 35,000 students in nearly 100 performances. Since its inception, OPERA Iowa has presented over 1,000 performances of 16 operas and 3,900 classroom workshops for over 500,000 students and adults worldwide.



The summer repertory season includes three operas, consisting of both standard and contemporary repertory. The 2010 Summer Festival runs June 25 through July 18 and features Mozart's *The Marriage of Figaro*, Verdi's *Macbeth*, and Floyd's *Susannah*.

Des Moines Metro Opera's home theatre is the Blank Performing Arts Center located in Indianola, Iowa. It is a unique, intimate "theatre-in-the-half-round" that seats 488 people, where audience members sit no more than 12 rows from the stage. Due to audience demand, the total number of performances has been increased from

eight in 1983 to the current sixteen. Des Moines Metro Opera periodically performs in the 2,750-seat Civic Center of Greater Des Moines. Productions staged at the Civic Center include *Aida* in 1984, the 1991 holiday production of *Hansel & Gretel*, the January 1998 production of *Tosca* and the January 2001 production of *La Bobème*. In December, 2003 and 2005, DMMO staged a special holiday presentation of Menotti's *Amahl and the Night Visitors* at the beautiful Hoyt Sherman Place Theatre.

For over three decades of spectacular growth and accomplishment, Des Moines Metro Opera has adhered to the philosophy set forth at its inception:

PRODUCE opera as a living art form through performance and composition.

OFFER a stage for American-trained principal artists.

PROVIDE a high caliber apprentice artist program that provides greater than average opportunities to perform and to participate.

DEVELOP regional audiences of all ages through educational outreach programs.

"Larsen's dual role [as conductor and stage director] results in stagings which are never at odds with the singing, but serve to enhance and clarify the music in a logical and dramatic manner."

—Opera News

*Follow-up
Activities*

Opera Composers Word Search

A composer is a person who creates music from ideas in their head. They also arrange or set musical ideas or elements from existing music together in a new and original way. The names of famous opera composers are listed below. Can you find them in the word search puzzle?

Beethoven
Berlioz
Bizet
Britten
Debussy
Donizetti

Gershwin
Gounod
Mozart
Offenbach
Puccini
Rossini

Strauss,
Stravinsky
Tchaikovsky
Verdi
Wagner
Weill

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

Related Resources

Books for Educators

- Burchard, Peter Duncan. Carver: A Great Soul. Serpent Wise: Fairfax, 1998.
- Edwards, Linda McMurray. George Washington Carver: Scientist and Symbol. Oxford University Press: New York, 1982.
- Holt, Rackham, ed. George Washington Carver, an American biography. Doubleday, Doran and Co., Inc.: New York, 1943.
- Karson, Jill, ed. Leaders of the Civil Rights Movement. Greenhaven Press: Farmington Hills, 2005.
- Kremer, Gary R., ed. George Washington Carver: In His Own Words. University of Missouri Press: Columbia, 1987.
- Lotz, Philip Henry. Rising Above Color. Books for Libraries Press: Freeport, 1972.
- Manber, David. Wizard of Tuskegee: The Life of George Washington Carver. Crowell-Collier Press: New York, 1967.
- Neyland, James. George Washington Carver. Melrose Square Pub. Co.: Los Angeles, 1991.
- Norrell, Robert J. Reaping the Whirlwind: The Civil Rights Movement in Tuskegee. Knopf: New York, 1985.
- Wellman, Sam. George Washington Carver: Inventor and Naturalist. Thorndike Press, Thorndike, 2001.

Books for Students

- Benitez, Mirna. George Washington Carver, Plant Doctor. Raintree/Steck-Vaughn: Austin, 1992.
- Driscoll, Laura. George Washington Carver: The Peanut Wizard. Grosset & Dunlap: New York, 2003.
- Edwards, Linda McMurry. George Washington Carver: The Life of the Great American Agriculturalist. PowerPlus Books: New York, 2004.
- Greene, Carol. George Washington Carver: Scientist and Teacher. Childrens Press: Chicago, 1992.
- Halvorsen, Lisa. George Washington Carver: Innovator in Agriculture. Blackbirch Press: San Diego, 2002.
- Loesch, Joe. George Washington Carver: The Great Peanut Adventure. Toy Box Productions, 2003.
- Nelson, Robin. George Washington Carver: A Life of Devotion. Lerner Publications: Minneapolis, 2007.
- MacLeod, Elizabeth. George Washington Carver: An Innovative Life. Kids Can Press: New York, 2007.
- McKissak, Pat. African-American Scientists. Millbrook Press: Brookfield, 1994.
- McLonne, Margo. George Washington Carver: A Photo-Illustrated Biography. Bridgestone Books: Mankato, 1997.
- Meloche, Renee Taft. George Washington Carver: America's Scientist. Emerald Books: Lynnwood, 2006.
- Monroe, Judy. George Washington Carver: Scientist and Inventor. Capstone Press: Mankato, 2006.
- Rogers, Teresa. George Washington Carver: Nature's Trailblazer. Twenty-first Century Books: Frederick, 1992.
- Stanley, Phyllis M. American Environmental Heroes. Enslow Publishers: Springfield, 1996.

Continued on next page...

Recommended Websites about George Washington Carver

The College of Agricultural, Environmental and Natural Sciences offers an education that prepares future professionals and leaders in the life sciences through course work along with research and outreach activities. Our college has inherited the legacy of George Washington Carver with his many contributions to teaching, research, outreach and new product development—aimed at serving the unreached of his time. <http://www.tuskegee.edu/Global/category.asp?C=35008&nav=CcX8CqP5>

Welcome to the official homepage of the George Washington Carver National Monument. Here you will find access to photos and information about Dr. Carver and the National Park dedicated to his remembrance. <http://www.nps.gov/archive/gwca/expanded/main.htm>

Since the beginning of America's existence, education has always been considered as one of the keys to social, political and economic acceptance for African-Americans. Tuskegee Normal School was established by the state of Alabama, influenced by a former slave and a former slave owner to educate newly freed people and their children. The Normal School, later Institute, became a beacon of hope for African-Americans to reach their goal of acceptance. The school officially opened on July 4, 1881, in the African-American Methodist Episcopal Zion Church under the auspices of religion. This date was chosen, to commemorate the independence of a Nation and the freedom of a forgotten people. Booker T. Washington became the first principal of a newly formed school at the age of twenty-six. He later hired individuals like George W. Carver and Robert Taylor to help lead the institute to its world-renowned status. <http://www.nps.gov/tuin/>

The HistoryMakers represents the single largest archival project of its kind in the world, outdistancing the existing video oral history collections of New York's Schomburg Library and the Birmingham Civil Rights Museum. The HistoryMakers is unique among these other collections of African-American heritage, because of its massive scope. Like other oral history collections, The HistoryMakers collection hearkens back to the earliest and most authentic efforts to capture the voice of a people, while introducing state-of-the-art technology and increased accessibility. The HistoryMakers wants to provide living proof that African-American history did not begin or end with the civil rights movement, that the HistoryMakers number in the thousands and that their names are not just Harriet Tubman, W.E.B. DuBois, Martin Luther King, Jr. and Ella Fitzgerald. <http://www.thehistorymakers.com/>

Discover the missing pages of history and relive the dramatic Underground Railroad period through maps, rare photographs, background information and activities that bring this little-known chapter of American history to life. <http://www.ugrr-illinois.com/>

Post-Performance Suggestions

Make a quiz to help the students reflect on the performance:

1. What made the story interesting and exciting?
2. Did it build to a conflict?
3. Was the conflict resolved? How?
4. What were the students' favorite parts of the production?
5. Did the students believe in the characters' actions and reactions?
6. Were the costumes appropriate and interesting?
7. How did the opera make the students feel? Why?
8. What do opera singers have to do besides sing in an opera?

Have a group discussion about the opera. Ask the students:

1. Which characters did they like best? Why?
2. How did the costumes and make-up help them believe in the characters?
3. If they could identify which actors played more than one role?
4. Which songs were their favorites? Why?
5. If the opera was different than what they expected? How?

Identify any recurring musical themes in the opera and discuss how they may or may not be relevant today.

Use the glossary of opera words for a spelling contest.

Make a project out of bringing in newspaper articles about other arts events.

Create your own opera using a fairy tale or other story, or make up your own. Set it to a familiar tune or original music. The students can create, design and build simple scenery and costumes. Be creative!

Thank You

for your extra effort and cooperation in making this an exciting
and wonderful experience for you and your students!

Sponsors

After OPERA Iowa Leaves...

Please, please, please send thank-you letters, colorful drawings, postcards, or other interesting works of art to the donors listed below whose support has helped bring OPERA Iowa to your school. These sponsors have told us the letters of appreciation they receive from students and teachers mean a great deal to them. Sending a few letters to each sponsor works better than sending dozens of letters to one or two sponsors. For your convenience, address labels have been enclosed.

We like to get these at our office, too. We share them with troupe members and also include examples when we apply for future OPERA Iowa funding. The troupe members also like to receive mail sent by the students they have met on the tour.

THIS YEAR'S OPERA IOWA TOUR HAS BEEN GENEROUSLY UNDERWRITTEN BY:

Pioneer Hi-Bred International, Inc.
Attn: Steve Schaaf
9550 White Oak Lane
P.O. Box 1014
Johnston, IA 50131

The Bright Foundation
Attn: Lois Bright
915 Ashworth Road, #115
West Des Moines, IA 50265

**Joan Kuyper Farver and
The Kuyper Foundation**
604 Liberty Street, #311
Pella, IA 50219

WITH ADDITIONAL SUPPORT FROM:

Allied Insurance/Nationwide Foundation
Attn: Mr. Kim Austen, President
1100 Locust Street
Des Moines, IA 50391-0002

ING
Attn: Todd Nevenhoven
909 Locust Street
P.O. Box 1635
Des Moines, IA 50306-1635

Rockwell Collins
Attn: Ron Kirchenbauer
400 Collins Road NE
Cedar Rapids, IA 52498

Ameriprise Financial Services
Attn: Jennifer Jones
108 AMP Financial Center
Minneapolis, MN 55474

Iowa Arts Council
Attn: Linda Lee
600 East Locust Street
Des Moines, IA 50319-0290

TARGET STORES
Attn: Kristin Prendergast
1111 East Army Post Road, #2204
Des Moines, IA 50315

Aviva Charitable Foundation
Attn: Karen Lynn
611 Fifth Avenue
Des Moines, IA 50309

John Deere Des Moines Operations
Attn: Susan Bowman
825 SW Irvinedale Drive
Ankeny, IA 50023

The Vredenburg Foundation
Attn: Raymond Meyer
P.O. Box 678
Chariton, IA 50049

**Anderson Erickson Dairy Co.
Des Moines and Kansas City**
Attn: James Erickson
2420 East University Avenue
Des Moines, IA 50317

Meredith Corporation Foundation
Attn: Mell Meredith
1716 Locust Street
Des Moines, IA 50309-3023

Wells Fargo Bank Iowa, NA
Attn: Scott Johnson
666 Walnut Street
Des Moines, IA 50309

Bravo Greater Des Moines
Attn: Mr. MD Isley
1915 Grand Ave
Des Moines, IA 50309-3311

MidAmerican Energy Foundation
Attn: Ms. Sara Schillinger
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Des Moines, IA 50306-0657

The Coons Foundation
Attn: Ms. Christine Coons
17112 480th Lane
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Prairie Meadows Racetrack and Casino
Attn: Julie Stewart
1 Prairie Meadows Drive
Altoona, IA 50009

OPERA Iowa and the Education Division of Des Moines Metro Opera are supported with grants from:

William Randolph Hearst Endowment for Educational Outreach

Attn: Mr. Paul Dinovitz
90 New Montgomery Street, Suite 1212
San Francisco, CA 94105

National Endowment for the Arts

Attn: Georgianna Paul
110 Pennsylvania Avenue, NW
Washington, DC 20506-0001

BECOME AN ADVOCATE FOR THE ARTS AND CULTURE IN IOWA!

Cultural programs like OPERA Iowa are important to this great state. Please send a letter to Iowa's U.S. Senators and Representatives in Washington, DC, to tell them how much you've enjoyed OPERA Iowa. In the midst of budget cuts, it is crucial that these individuals be made aware of how valuable your experience was and that you believe in federal and state support of the arts. In 1995, five student letters were read into the U.S. Congressional Record as part of the National Endowment's request for renewed funding.

Sen. Staci Appel
State Capitol
Des Moines, IA 50319-0001

Rep. Kevin Koester
State Capitol
Des Moines, IA 50319-0001

Rep. Tom Latham
1421 South Bell Ave., Ste. 108A
Ames, IA 50010

Sen. Dick Dearden
State Capitol
Des Moines, IA 50319-0001

Rep. Chris Hagenow
State Capitol
Des Moines, IA 50319-0001

Rep. David Loeb sack
150 1st Ave. NE, Ste. 375
Cedar Rapids, IA 52401

Sen. Charles Grassley
135 Hart Senate Office Bldg.
Washington, DC 20510

Rep. Leonard Boswell
300 East Locust, Ste. 320
Des Moines, IA 50309

Rep. Kevin McCarthy
State Capitol
Des Moines IA 50319-0001

Sen. Tom Harkin
731 Hart Senate Office Bldg.
Washington, DC 20510

Rep. Bruce Braley
501 Sycamore St., Ste. 623
Waterloo, IA 50703

Rep. Jo Oldson
State Capitol
Des Moines, IA 50319-0001

Sen. Jack Hatch
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Rep. Kent Sorenson
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Rep. Ako Abdul-Samad
State Capitol
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Rep. Steve King
40 Pearl St.
Council Bluffs, IA 51503