

Innovative Americans

An interdisciplinary unit incorporating the Christian perspective and facts stated in American History about African American Innovators.



By

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Innovative Americans

Description of Target Grade Levels – This unit has been designed for the middle and upper elementary grades.

Purpose – Innovative Americans presents an interdisciplinary unit incorporating the Christian perspective and the facts stated in American History. This project is designed for whole class use and/or small group use. You will find that learning takes place using several teaching techniques.

They were not citizens; they were slaves. They were not supposed to be knowledgeable; yet they were creative. Who were they? ***African American Innovators!*** This unit will explore the contributions these unique men and women have made to improve the lives of people in their time and in today's society.

This unit may be used in part or in whole. The following is a list of the order in which the stories and activities are organized:

Inspiration -

Frederick Douglass

Sojourner Truth

Hiram Revels

Mary McLeod Bethune

Molly Walsh and Bannaky

Benjamin Banneker

Norbert Rillieux

Benjamin Montgomery

Imagine This! – worksheet

Jan Earnst Matzeliger

Granville T. Woods

Elijah McCoy

Pearl of Great Price – worksheet

Needed – worksheet

Lewis Howard Latimer

Lewis Howard Latimer – Poet – activity

Andrew Jackson Beard

Garrett Augustus Morgan

George Washington Carver

By Products – worksheet

Got Lemons? Make Lemonade! – activity

Madame C.J. Walker

Marjorie Joyner

Lydia Flood Jackson

Choose Their Mottoes – worksheet

Charles Kinney

Anna Knight

Jane Cooke Wright, MD

Dr. Patricia Bath

Celebrate With An Innovator - worksheet

Make a Date With an Innovator – worksheet

Name That Person – worksheet

Keys

Bibliography

Faces of Science - Internet Links

*Special Thanks to Gary Fellows for the
artwork for many Innovative Americans.*



Frederick Douglass

Runaway Slave 1817 – 1895

"Freddy, I want you to look me straight in the face when we talk," Sophia Auld kindly told the slave boy. "You're not on the plantation anymore, so don't act like a scared rabbit."

"Yes, Miss Sophia," Frederick said. He smiled at her and thought how nice it would be to live with the Aulds and take care of their little boy Tommy. The house was always pleasant because of his new mistress' singing and praying. Often she stopped in her work to look at a large book. Frederick didn't see any pictures on its pages. He wondered why she spent so much time staring at the squiggly lines inside its covers.

"Would you teach me to read?" he asked.

"Of course, I will," Mrs. Auld said. "Let's start right now."

Before long, Frederick knew the alphabet and could spell simple words. "You are a very smart boy, Freddy," Mrs. Auld told him. "Soon you'll be able to read the Bible."

Later, Mrs. Auld proudly told her husband that Frederick was turning out to be a bright student. He frowned at the black boy and then at his wife. "Sophia, you've never had slaves before, so I don't expect you to know how to treat them. But you cannot teach the boy to read."

"Why?" she exclaimed. "I thought you'd be pleased."

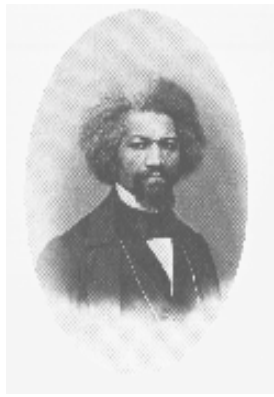
"It's against the law to teach slaves to read," he told her. "Learning will spoil the best slave in the world. All any slave should know is how to please his master."

Mrs. Auld did just as she was told by her husband. But from that moment on, Frederick understood that the way out of slavery was through education. When he and little Tommy Auld played with white boys in the neighborhood, Frederick begged them to teach him how to read and write. They gave him a Webster's blue-backed speller. Then they gladly helped Frederick with his lessons. "You've got as much right to learn as anybody," one of the boys told him. "God didn't make anyone to be a slave, especially not someone as smart as you."

For the next twelve years, Frederick worked for Hugh Auld and his family in Baltimore and for Hugh's brother Thomas Auld and his family on their big plantation near Easton, Maryland. During that time, he met a black man named Charles Lawson who taught him about the Christian faith. Frederick began to pray and felt a new love in his heart for everyone. But his hatred for slavery became even greater.

"One of these days, the Lord has a great work for you to do," Lawson told him.





"I am a slave, and a slave for life," Frederick said. "How can I do anything?"

"The Lord can set you free," Lawson said with confidence. "If you want liberty, ask the Lord for it in faith, and He will give it to you."

Sometimes Frederick would stand on the bank of the Chesapeake Bay and watch the sailboats moving out toward the ocean. He dreamed of sailing across the water into freedom. "Oh God, save me!" he prayed. "Deliver me!" Then he thought, *I cannot live and die a slave. God helping me, I will travel north and be free.*

In the fall of 1838, Frederick's prayer was answered. With borrowed identification papers from a free black sailor and a train ticket given to him by his girlfriend, he took a train out of Baltimore and into a brand new life. No longer was he Frederick Augustus Washington Bailey, a Southern slave. He became Frederick Douglass, a free man, and he married the young woman who had helped him escape. They settled in New Bedford, Massachusetts.

Three years after his escape, Frederick attended his first antislavery meeting. When the abolitionist leaders learned that he was an escaped slave, they asked him to speak. The crowd listened in horror as the twenty-three-year-old black man told them what it was like to grow up in slavery. They cried as he talked about how it felt to be free.

After the meeting, Frederick's hero, abolitionist William Lloyd Garrison asked him to become an agent for the American Anti-Slavery Society. For the next ten years Frederick spent most of his time traveling and speaking. He also wrote a book about his experiences, and it became one of the most popular books in America. Telling about his past took great courage because runaway slaves could be captured and taken back to their masters.

When things became too risky for Frederick and his wife, they left the country. During their long visit to England, Douglass spoke often and made many friends. These British friends collected enough money to buy his freedom from the Aulds.

When the Douglasses came back to America, they lived in Rochester, New York. Often late at night, they would welcome runaway slaves into their home. "You're safe here," Frederick told them. When they were fed and rested, he made sure they had a way to travel on to wherever they were going. Hundreds of people in the North and South helped African Americans in this way. They called their escape routes "the underground railroad."

Frederick edited a newspaper and continued to speak out against slavery. When the Civil War began, he encouraged black men to join the army. When he heard that they were treated badly, he went to see President Lincoln and asked him to do something about it.

After the war and slavery ended, Frederick Douglass moved to Washington, D.C. As president of the Freedman's Savings and Trust Company, he helped freed slaves get a new start in life. He also served his country as U.S. Marshal for the District of Columbia and U.S. Minister to Haiti.

When Douglass learned that one of the Aulds' grown-up daughters had come to hear him speak, he



went looking for her. She and her husband invited him to their home and welcomed him as a friend. "I always agreed with you about slavery," Amanda told him. "As soon as my slaves were adults, I set them all free."

Not long after that, Douglass decided to visit the Maryland plantation where he had lived as a little boy. He wanted to know what had happened to his relatives. When his former owner Captain Thomas Auld heard he was in the area, he invited him to come for a visit.

"Come sit beside my bed, Marshal Douglass," the feeble old man said.

"Not Marshal, but Frederick to you," Douglass answered. As the former master and slave shook hands, tears rolled down Auld's face. "Frederick, I always knew you were too smart to be a slave," he said. "If I had been you, I would have run away just as you did."

"You and I were both born into a way of life we didn't choose," Douglass told him. "It was wrong, but now it is past."



** Frederick Douglass's home on A Street in Washington, D.C. is now the Museum of African Art. Its twelve galleries display carvings, clothing, musical instruments, and paintings. One room in the building is dedicated to photographs and writings of Douglass. He purchased this house after the Civil War when he was serving as a federal marshal.

** The best way to get to learn about this great man is by reading his book titled The Life and Times of Frederick Douglass. In its pages, he wrote, "I love the religion of our blessed Savior that comes from above and is pure, peaceable, fair, gentle, full of mercy and good deeds."

Internet Links

Frederick Douglass

Find links to Web sites containing information about Frederick Douglass.

<http://afroamhistory.about.com/cs/frederickdouglass1/index.htm?iam=dpile&terms=%2BFrederick+%2BDouglass>

Frederick Douglass Narrative

Read Douglass' narrative about his life. This site provides a copy of *The Narrative of the Life of Frederick Douglass*.

<http://afroamhistory.about.com/gi/dynamic/offsite.htm?site=http%3A%2F%2Fjefferson.village.virginia.edu%2F>

The African American History Challenge

Frederick Douglass, Harriet Tubman and Sojourner Truth are popular African American figures. The Bright Moments web site tells you about these well known figures as well as lesser known, yet significant figures from African American history. (Mary Ch

<http://www.brightmoments.com/blackhistory/fnfdougla.html>

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Chariot Victor Publishing, 1997



Sojourner Truth

Traveler for the Lord

1797 – 1883

Every day, Isabelle and her family worked hard on their Dutch master's farm in Hurley, New York. Then at night, they huddled together in the basement of Colonel Charles Hardenbergh's house. In this damp, dark room, they tried to make a home and keep their hope alive.

"Gather 'round, children," Mama Bett said almost every evening. Isabelle knew that meant story time. She loved to hear her mother's rich voice tell about faraway times and places. Mama Bett also listened to her children's problems and did her best to comfort them.

"My children, there is a God who hears and sees you," she told them. "When you are beaten, or cruelly treated, or fall into any trouble, you must call on Him. He will always hear and help you."

When Isabelle was nine years old, Colonel Hardenbergh sold her away from her family. Her new master didn't speak Dutch like the Hardenberghs, so when Isabelle was told to do something, she did not understand the English words. For her disobedience, she was whipped across her back until blood came.

As she cried herself to sleep at night, Isabelle remembered her mother's words about asking God for help. She began to tell Him her troubles every day just as she would have talked to Mama Bett. Sometimes she felt sure she heard Him answer.

Before her thirteenth birthday, she had learned English and could understand instructions. As Belle finished growing up and started her own family, she heard how the people of New York were gradually changing their minds about slavery. The state passed a law on July 4, 1827, to set all its slaves free.

Some wonderful Quakers helped Belle get a new start in life. They told her, "You have no master now except God."

That same year, Belle had an amazing experience. While having one of her daily talks with God, she saw a bright light all around her. "Who are you?" she asked, aware that someone was with her. "It's Jesus!" she said. From that day on, she was sure the Bible stories about the Savior rising from the dead were really true.

Although she was free, Belle still had many hard times and was often mistreated. In 1829, she went to work as a housekeeper in New York City. After several years, she decided life in a big city was another kind of slavery. Wealthy people lived in mansions, while the poor and people just arriving from Europe suffered in the city's slums. "Here the rich rob the poor and the poor rob each other," she told a friend.



In 1843, Belle left the city and went east. *Lord, I need a new name for my new life*, Belle thought. In her mind, she heard Him say, “Your new name is Sojourner because you are to travel up and down the land, showing people their sins.” Since God was her Good Master now and His name was Truth, Sojourner took His name as her last name.

Wherever Sojourner Truth traveled, she told everyone who would listen about God. She supported herself by doing small jobs in homes. When she wasn’t working or traveling, she preached, sang, and prayed in the streets. Often she visited religious and reform meetings. Many times she spoke, even when she wasn’t one of the scheduled speakers. People listened in amazement to this six-foot-tall black woman with a deep, strong voice. Although she wore a simple dress, Sojourner had the confidence and dignity of a queen. Whenever she spoke, people listened.

As she traveled from town to town, Sojourner discovered that many Americans – white and black – were working hard to end slavery. They called themselves *abolitionists* because they wanted to put an end to slavery in the entire United States. They asked her to speak in most of their gatherings.

Sojourner also found out that women in America were beginning to speak up for their rights. Since she believed God made all His children to be respected and fully free to use their abilities, she supported their cause and spoke in many of their meetings.

Just before the Civil War, Sojourner visited Iowa. As she traveled, she heard farmers talking about how insects called weevils had destroyed their wheat crop. The fields of wheat looked just fine to Sojourner. But when she looked closely at the grain, she could see that it had been eaten up from inside.

She traveled on to a religious meeting and took a seat near the front of the room. One of the speakers talked about the greatness of the U.S. Constitution and how it protected the rights of all Americans. Sojourner listened until he finished. Then she stood and began to speak.

“Children, I talk to God and He talks to me,” she told the crowd. “I talk to God in the fields and woods. This morning I was walking and I saw the wheat holding up its head, looking very big. I went up and took hold of it. Would you believe it, there was no wheat there?” Everyone in the meeting knew just what she meant.

“I asked God, ‘What’s the matter with this wheat?’” she continued. “And He said to me, ‘Sojourner, there is a little weevil in it.’”

She paused and looked at the man who had just spoken before her. “Now I hear talking about the Constitution and the rights of man. I come up and I take hold of this Constitution. It looks mighty big, and I feel for my rights, but there ain’t any there.”

Here and there in the crowd, people began to chuckle. Sojourner went on speaking. “Then I said, ‘God, what’s the matter with this Constitution?’ He said to me, ‘Sojourner, there is a little weevil in it.’”



Of course, slavery was the “weevil” she was talking about.

For twenty-one years, Sojourner traveled from the New England states, around the Great Lakes, across the Midwest, and into the frontier towns of Missouri and Kansas. During the Civil War, she helped raise money for black regiments.

At the age of sixty-four she decided to go to Washington, D.C. and talk to President Lincoln. He was eager to meet this brave African American who had done so much to help end slavery. He invited her to come to the White House.

Although Sojourner couldn’t read or write, she kept an autograph book. In her Book of Life, she collected signatures of important people she met. When she handed it to President Lincoln, he wrote, “For Aunt Sojourner Truth, October 29, 1864.” She was proud to call him her friend.

After the war Sojourner went to work for the National Freedmen’s Relief Association, a group that helped freed slaves find homes and work.

** Sometimes Sojourner Truth lost patience with folks who had the education and advantages in life that she lacked. “With all your opportunities for reading and writing, you don’t take hold and do anything,” she fussed at them. “I wonder what you are in the world for!” She tried to make the world a better place, especially for those who were treated cruelly.

** If you feel small and think your words and actions won’t make a difference, remember what Sojourner once said to an “uppity” lawyer. After hearing her speak, he told her, “Your words don’t mean any more to me than a flea bite.” “Maybe not,” she said. “But, the Lord willing, I’ll keep you scratching.”

Courtesy of: In God We Trust
Chariot Victor Publishing, 1997



Internet Links

Sojourner Truth

Early America and Slavery

Slave narratives, notable African American women including Phillis Wheatley, Sojourner Truth, Sally Hemings and Harriet Tubman, racial attitudes and bibliographies.

<http://womenshistory.about.com/cs/slavery/>

About Sojourner Truth

From your About Guide: a biography of Sojourner Truth. With a portrait.

<http://womenshistory.about.com/library/bio/bltruth.htm>

Ain't I a Woman?

Frances Gage's 1881 account of the 1851 speech by Sojourner Truth to the Women's Rights Convention in Akron, Ohio.

http://womenshistory.about.com/library/etext/bl_sojourner_truth_woman.htm

Sojourner Truth Quotations

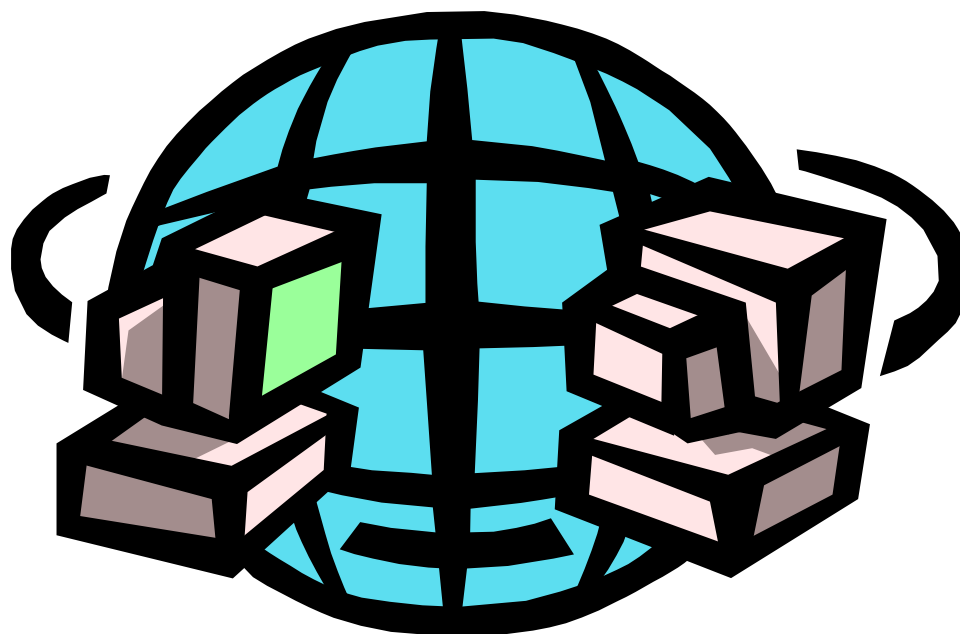
Quotes from Sojourner Truth compiled by your Women's History Guide.

<http://womenshistory.about.com/library/qu/blqutrut.htm>

Narrative of Sojourner Truth

From the About African American History site, an online version of Sojourner Truth's autobiography.

http://afroamhistory.about.com/library/bltruth_contents.htm



Hiram Revels

First African American Senator 1827 – 1901

Much of the South lay in ruins after the Civil War. Many of its homes, churches, and schools had been destroyed during the fighting. The rest had suffered from years of neglect while Southern men were serving in the Confederate Army. The end of slavery also brought many changes in the way people lived and worked.

At first, every Southern state was under the control of the U.S. Army. In order to govern themselves once again, states like Mississippi had to write new constitutions that guaranteed the loyalty of its citizens to the United States government. They also had to promise equal treatment for blacks and whites.

In 1870, almost five years after the Civil War ended, Mississippi set up a new state government. For the first time, black men had a place in the state legislature. Some of those elected had been slaves, but others were free men like Reverend Hiram Revels of Natchez.

Although he wanted to serve his country and his people, Reverend Revels shook his head when folks urged him to get involved in government. "I don't want politics to get in the way of my work as a minister of the Gospel," he said. "And my color will no doubt cause many people to disapprove." But after talking with trusted friends, he agreed to become a city councilman.

Because of his gentle, peace-loving attitude and his intelligence, Revels found that most Mississippi folks respected him. He carefully kept his political work separate from his church work. Soon the people of Adams County elected him to represent them in the Mississippi State Senate. Then, in January 1870, something incredible happened. Hiram Revels was appointed to the United States Senate. "You'll be sitting in the President's seat, Hiram," one of his friends told him.

Reverend Revels laughed. "Yes, I suppose I will be," he said. "Sittin' in the seat of poor old President Jefferson Davis of the Confederate States of America. Imagine that! Well, I hope I do my country a better service than he did!

When Reverend Revels arrived in Washington, D.C., he discovered that some of the senators didn't want him there. "How could a colored man be qualified for this job?" they asked themselves. Although Revels was a loyal Republican like them and had done his part in the war effort, he quickly learned most white people still didn't think African Americans were their equals. For three long days, they looked at his history and talked about whether he was worthy to serve in the Senate. Here's what they learned about this quiet, dignified Methodist minister:

Born to free parents in North Carolina, Revels had attended Quaker schools in Indiana. After graduating from Knox College in Ohio, he began his work as a preacher, pastor, and educator. For a while he traveled and preached to African Americans in several states. Then he moved to Baltimore, Maryland, where he pastored a Presbyterian church and served as a school principal.





When the Civil War began, Reverend Revels encouraged black men to form their own army regiments and fight for the Union. During the War, he moved to St. Louis and started a school for freed slaves. In 1864, he became the chaplain of a regiment of freedmen from Mississippi. Two years later, he decided to make his home in Natchez, Mississippi. During the four years before Reverend Revels went to Washington, he had been doing everything he could to help rebuild his adopted city and state.

Senator Charles Sumner, a brave friend of African Americans, stood up to speak for Hiram Revels. He convinced the Senate to accept Revels. But many hard battles lay ahead. When Reverend Revels was invited to speak at a meeting in Philadelphia, the city refused to let him speak in its Academy of Music because of his skin color. The battle against slavery was over, but the war for equal rights had just begun.

As white Southerners watched black people take honored places in society, they became afraid that African Americans would take over their jobs and property. Some of them burned the homes and businesses of black people. Others accused the black men serving in a government of misrule and robbery.

Senator Revels spoke up for African Americans in the forty-first Congress. "The past record of my race is a true sign of their feelings today. They bear no revengeful thoughts or hatred toward their former masters," he said. "They do not aim to raise themselves by taking away any benefits of the white citizens. They ask only for the rights which are theirs by God's universal law, and which are the natural result of the freedom this nation has given them." He paused and looked around the Senate chamber, calling on every politician to do what was right. "They appeal to you and to me to see that they receive that protection which alone will let them go about their daily work with success and enjoy the liberties of citizenship the same as their white neighbors and friends."

Revels proved to be a capable senator. He supported new laws that would give back white Southerners' rights to vote and serve in government jobs. "The best way for colored people to gain their rightful place in America is not by violence, but by getting an education and leading clean, courageous lives," he told his people.

During his year in Washington, D.C., Senator Revels spoke out against the city's segregated school system and the Washington Navy Yard, which refused jobs to African American men.

After serving his short term in the Senate, Reverend Revels returned to pastor in Mississippi and also became president of Alcorn College. He stayed active in state government and surprised everyone by helping to remove Northern Republicans from control of the state. But Hiram Revels' first love was always Christian ministry. In fact, he spent the last happy hours of his life in church!



****Beginning with Reverend Hiram Revels, many African Americans have served in Congress. In 1966, Edward Brooke of Massachusetts became the first black man elected to the Senate by popular vote.**

****Black churches have encouraged their members to take an active part in American politics, especially voting. Several African American ministers have served in Congress, including Andrew Young, Walter Fauntroy, William Gray III, and J. C. Watts. Other Christian ministers such as Martin Luther King, Ralph Abernathy, and Jesse Jackson have influenced American politics and government through their speeches, writing, and peaceful demonstrations.**

Courtesy of: In God We Trust
Chariot Victor Publishing, 1997



Internet Links

Hiram Rhodes Revels United States Senator Republican of Mississippi Forty-first Congress Hiram Revels, the first black member of the United States Senate, was born in Fayetteville, North Carolina, of free parents, on September 27, 1827.

www.usbol.com

State Library of North Carolina North Carolina Encyclopedia Hiram Rhoades Revels Hiram Rhoades Revels was born a free man of African American and Indian descent in a slave state and became the first African American member of Congress.

statelibrary.dcr.state.nc.us

Hiram Revels Related to Men in John Brown's Army

Research paper connects the pedigree of Hiram Revels, the first African-American elected to the Senate, to men in John Brown's Army.

www.atozproductions.com

REVELS, Hiram Rhodes (1827-1901) Biographical Information

REVELS, Hiram Rhodes, 1827-1901

bioguide.congress.gov

Hiram Rhoades Revels was the first black to sit in the U.S. Senate. Born in Fayetteville, North Carolina in 1822, he moved to Indiana and Illinois to obtain an education.

ils.unc.edu

Revels, Hiram R(hoades), an Encarta Encyclopedia Article Titled "Revels, Hiram R(hoades)" (1822-1901), American clergyman and educator, the first black to sit in the U.S. Senate.

encarta.msn.com

Hiram R(hoades) Revels - encyclopedia article from Britannica.com

Hiram R(hoades) Revels - b. Sept. 1, 1822, Fayetteville, N.C., U.S. d. Jan. 16, 1901, Aberdeen, Miss. American clergyman and educator who became the first black citizen to be elected to the U.S. Senate (1870-71), during Reconstruction.

www.britannica.com



Mary McLeod Bethune

The Black Rose 1875 – 1955



On her first day in the Presbyterian mission school, seven-year-old Mary McLeod (mac-loud) had to pinch herself to make sure she wasn't dreaming. No one in her whole family had ever been to school. There were no public schools for African American children in most Southern towns. But thanks to some generous Christians, Mayesville, South Carolina, had a school and a black teacher named Miss Emma Wilson.

Mary could hardly wait to begin learning to read. She watched in fascination as Miss Wilson opened the Bible. "Children, listen to what God's Son said about His Father's love for you," the teacher said. "God so loved the world that He gave His one and only Son, that whoever believes in Him shall not perish but have eternal life."

Miss Wilson looked up at her students and said, "That word 'whoever' means you. No matter what others may say about you, you are just as important and loved by God as anyone else in the whole world. And the Lord wants you to learn."

Mary McLeod had never heard such an amazing thing. But her parents had taught her to believe in God, Jesus, and the Bible. She thought, *If God said it, it must be true*. From that moment on, Mary McLeod believed she was somebody.

Each day in the little schoolhouse brought new adventures: learning to read and count; hearing new stories from the Bible; and, studying history, geography, and the wonders of nature. Then, at the age of eleven, Mary completed all the studies Miss Wilson offered. Her family came to watch her graduate, proud and excited that their first child to be born free from slavery had an education, too.

For the next year, Mary worked in the cotton fields all day. Whenever her father went to sell his cotton or pay his bills, Mary went along to do the counting for him. At night she taught her brothers and sisters what she had learned in school, and she read to her family from the Bible. She missed going to school, and she prayed, "Lord, make a way for me to go on learning."

One day Miss Wilson came to visit the McLeods. "I have good news," she said. Her face glowed with happiness. "A seamstress in Colorado has offered to pay for one of my students to go on to another school." She looked at Mary and smiled. "I chose you, Mary. If your parents think it is all right, you can attend Scotia Seminary where I studied."

"Scotia?" Mary's mother asked. She looked happy and worried all at once.

"It's a Christian school for black girls in Concord, North Carolina," Miss Wilson said. "After Mary finishes the general studies, she can also learn to be a teacher at Scotia if she wants to."



"Oh, yes!" Marty said. And her parents agreed.

Four years later Mary graduated from Scotia Seminary. None of her family had the money to come and see her receive her diploma. But she had many wonderful school friends to share her joy. And thanks to Miss Chrissman, the woman who paid her school bills, Mary could go on studying four more years in the Scotia school for teachers.

In 1894 Mary completed her training as a teacher. For some time she had dreamed of going to teach in Africa. In her letters to Miss Crissman, Mary wrote about her longing to tell Africans about God's love.

Miss Chrissman wrote back and said, "How would you like to go to Moody Bible Institute in Chicago, Illinois, for a year of missionary training? I'll be glad to pay your way."

Nineteen-year-old Miss Mary McLeod eagerly enrolled. She was the only black in the large Chicago school. She enjoyed her time at Moody Institute, but her dream of going to Africa was crushed. The Mission Board told her, "We have no openings for Negro missionaries to Africa."

Instead of letting her disappointment defeat her, Mary decided to teach African Americans. "Neither God nor man can use a discouraged person," she said. And more than anything, she wanted to be useful. As a young teacher, she married Albertus Bethune (buh-thoon) and had a little boy she named Albert.

After several years of teaching in South Carolina, Georgia, and Florida, Mrs. Bethune decided to start a school of her own. Many black people had moved to Daytona Beach to help build a railroad for tourists. Their children needed a school.

Mrs. Bethune found a run-down four-room house to rent, got the neighbors to help her fix it up, and started her school. She and her students used wooden boxes for desks and chairs, berry juice for ink, and burned logs to make charcoal for pencils. Mrs. Bethune sold pies and went door-to-door asking for donations to her school. When folks heard her beautiful voice and saw her handsome, loving face, many of them eagerly gave money to help.

In just two years, Mrs. Bethune's school had grown from five students to 250. Although she was still very poor, Mrs. Bethune believed God would help her build a school big enough for all the students who wanted to come. And, somehow, He did. The new school building was named Faith Hall. As they walked into the building, students read the words, "Enter to learn." As they walked out, they read, "Depart to serve."

Mrs. Bethune compared the different kinds of people in the world to flowers in a garden. "In the people garden there are red and yellow, tiny and tall," she said. "Although each flower is different, each is beautiful."



Carl Van Vechten, photographer, Library of Congress, Prints and Photographs Division
Reproduction Number LC-USZ62-42476DLC)



"But Mrs. Bethune, there's no place in the people garden for blacks," a girl once said. "There's no such thing as a black flower."

"Ah, child, just because you haven't seen one doesn't mean there is no such thing," Mrs. Bethune answered.

On a visit to Europe, Mrs. Bethune found out how right she had been. In Holland, she received black tulips. And in Switzerland friends showed her the black rose. "I want seventy of those wonderful rose bushes to plant outside my school!" she said with delight.

In time, Mary McLeod Bethune's school became Bethune-Cookman College. She also founded the National Council of Negro Women, served in important federal government positions, and worked in many ways to improve the lives of African Americans.

** In 1974, a statue of Mary McLeod Bethune was dedicated in a Washington, D.C. park. It shows her handing a paper to a boy and a girl. At the bottom of the statue visitors can read Mrs. Bethune's last words: "I leave you faith, I leave you hope, I leave you love."

Courtesy of: In God We Trust
Chariot Victor Publishing, 1997

Internet Links

The Life of Dr. Mary McLeod Bethune from Bethune Cookman College

Mary McLeod Bethune Papers: The Bethune-Cookman College Collection, 1922-1955 - introduction and description
<http://www.bethune.cookman.edu/mmb2.html>

Mary McLeod Bethune from the National Women's Hall of Fame
<http://www.greatwomen.org/bethune.htm>

Mary McLeod Bethune speaks of the power of education (sound files) from New York Public Library Schomburg Center for Research in Black Culture
<http://web.nypl.org/research/sc/scl/bethune.html>

Profiles in Caring: Mary McLeod Bethune from the National Association for Home Care
<http://www.nahc.org/NAHC/Val/Columns/SC10-6.html>

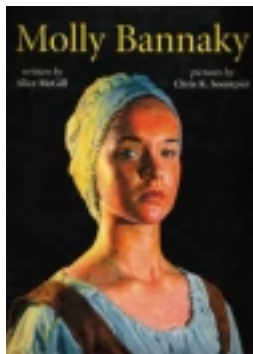
"From the first, I made my learning,
what little it was, useful every way I
could."

- Mary McLeod Bethune



Molly Walsh and Bannaky

Slave Owner and Slave

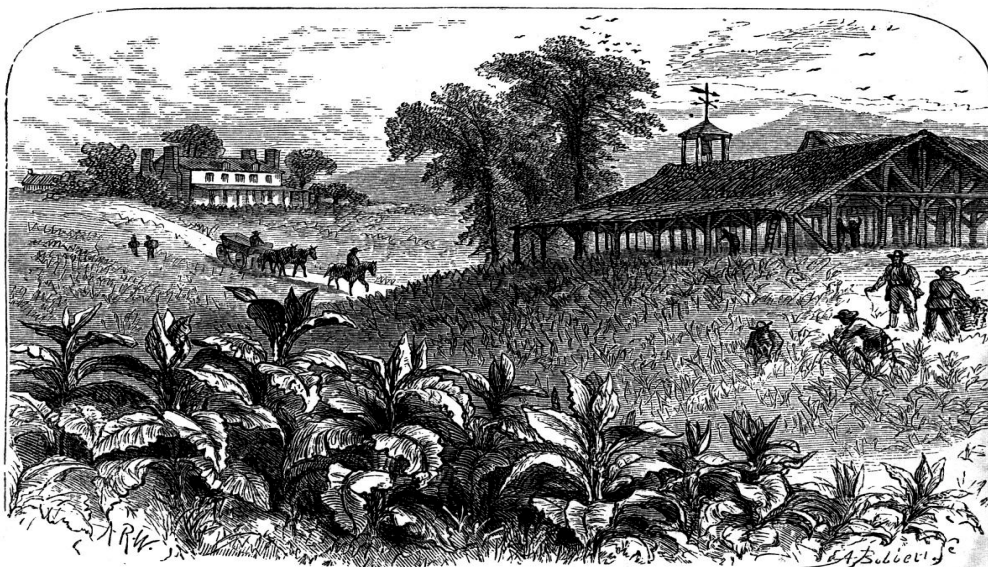


A Caucasian Englishwoman named Molly Walsh was a former dairymaid on a farm in England. She was accused of stealing milk and sentenced to serve seven years as an indentured servant in the colony of Maryland.

At the end of the seven years, Molly secured her freedom and decided to move to western Maryland in order to stake out a 150-acre farm. Of course, manpower was needed, so she purchased two male slaves who had just sailed into harbor on a slave ship. They helped her to clear and cultivate the farmland. The two slaves were freed when the farm was established.

At that time it was unlawful for a white person to marry a black or mulatto. Molly fell in love and married one of her slaves named Bannaky. They had one daughter named Mary. An act in 1681 declared that children born of a white servant woman and a black man were free. So Mary was a free person.

Bannaky was of African royal lineage and was quite skilled at farming techniques. Molly Walsh's farm was successfully managed as a result of her husband's agricultural acumen. He designed an irrigation system that diverted water from a nearby stream to make canals that watered the family property. He exercised his knowledge of crop rotation to maximize the effective use of the soil. Bountiful crops were yielded as a result of his skills and inventions. Their primary crop was tobacco, but they also planted rice, yams, sweet potatoes, and watermelons.



Benjamin Banneker



It's 1731 and time for a baby's birth. This baby, Benjamin, was a member of a most unusual family. His family believed that he was going to succeed when he grew up. He became famous as a very articulate, resourceful scientist.

His mother, Mary, was mulatto; his father Robert, was a slave. Mary followed her mother Molly Walsh's footsteps. She purchased her husband then married him and freed him. He adopted Mary's family name and became Robert Banneker. The family name was adapted from Mary's father's name, Bannaky. The couple had one boy and three sisters.

Benjamin was now twelve and he attended a boys' school operated by a Quaker named Peter Heinrich. The school was criticized by the white folk, because Mr. Heinrich spoke out against slavery and discrimination. A black boy, the only one, such as Benjamin was accepted as a student. He was a superior student. He excelled in math and quickly became more proficient in most subjects than his teacher. However, Benjamin respected his mentor and friend; he patterned most of his teacher's customs, even his mode of dressing.

Benjamin continued to work on the family farm. He was traveling on a trip to the coast to sell the tobacco, when he met Josef Levi. This man showed the youth a pocket watch that fascinated him. Mr. Levi explained how the watch worked. Benjamin was so excited about the object that he was given the watch as a gift. Do you know what Benjamin did with the watch? He took it apart. Imagine being given a gift you had never seen before, would you take it apart or would you keep it intact?

His desire to build a clock grew, but he needed help. He needed to understand ratios, movement and other calculations. He went to his former teacher for help and was given a picture of a clock, a book of the laws of motion by Isaac Newton and a publication on geometry.

Armed with this material he returned to his home to study and design. It took him two years to complete his project. Each gear was made of wood and hand carved. Finally, in 1753 he finished the first clock to be made in America. It is recorded that the clock kept perfect time for over forty years. In fact it became a tourist attraction. People came from all over the country to see his invention.

When he was 28 years old, Banneker fell in love with a slave named Anola. He sought to secure her freedom, but her master denied his request. The couple decided to run away by sailing to England. The plan failed and Banneker almost lost his life. Anola felt desolate, and she ended her life. Banneker vowed to never get married.

A few years after Robert Banneker died in 1759, the Ellicott family moved to the western Maryland area. The Bannekers and Ellicotts became friends. Andrew Ellicott, saw that the tobacco crops



were depleting the land and began to talk with neighboring farmers. He believed that wheat served many purposes. Benjamin Banneker was able to help the Ellicotts put the machinery together for a mill and he even helped them to design a small village around the mill. The village was completed in 1774 and called Ellicott's Mill. The change in crops proved beneficial to the area farmers because wheat was an important source of food during the Revolutionary War.

In 1776, Banneker had the opportunity to travel to Philadelphia. He was able to hear the Declaration of Independence written by Thomas Jefferson. He was most impressed with the statement "that all men are created equal; that they are endowed by their Creator with certain unalienable rights; that among these are life, liberty, and the pursuit of happiness."

When he returned from Philadelphia, he changed most of his farm crops over to wheat in order to help Washington's men during The Revolutionary War. Banneker also encouraged most of the area farmers to change their crops from tobacco to wheat.

Andrew Ellicott died during the Revolutionary War. He left Banneker a telescope, other scientific instruments, and some astronomy books. Andrew's son George shared a common interest in astronomy. Occasionally, both men studied together. At night, as Banneker observed the stars, he was able to measure their movements and kept detailed records. He accurately calculated the solar eclipse of the moon as it passed between the earth and the sun. His theory was ratified when the eclipse took place on the exact date of his prediction, April 14, 1789. Two of the most prominent astronomers, Ferguson and Leadbetter had miscalculated the date and time of the eclipse. This caused quite a stir in the scientific community. Here was a black untrained man who was able to do what the trained men could not.

Banneker decided to publish "Benjamin Banneker's Almanac" detailing information on sunrises and sunsets, the weather forecast for an entire year, holidays, and special occasions. This publication was unique because unlike Benjamin Franklin's almanac, he wrote all of his publication. Banneker's publication was produced from 1792 to 1802.

At the age of sixty Banneker was given the opportunity to work with a Frenchman, Major Pierre-Charles L'Enfant the designer of the city of Washington D.C. that was designated to be the new site of the nation's capital.

L'Enfant suddenly resigned from the project and returned to France with all his blueprints. This was devastating to George Washington. There appeared to be no alternative to starting the costly project all over again. Officials tried to find someone who could reproduce the plans. They were not successful. What were they to do? Andrew Ellicott who had invited Banneker to help survey the project, appealed to him. To everyone's amazement, Banneker stated that he could reproduce the plans from memory since he had worked so closely with L'Enfant. He was able to reproduce the plans in two days!

The remaining portion of his life was spent on his farm. Banneker received visitors and continued to speak out against slavery, war and in support of free education for all children. He died on October 25, 1806. On the day of his burial, the cabin that housed his office and equipment was deliberately burned to destroy evidence of his work. Fortunately, he had instructed a relative to deliver most of his possessions to his longstanding friend, George Ellicott.



Norbert Rillieux



Six years before Louisiana became a state, Norbert Rillieux was born on a New Orleans' plantation. The date was March 17, 1806. Norbert's father, Vincent Rillieux was an affluent French immigrant and master of the plantation. His mother, Constance Vivant was a free mulatto who lived on the same plantation.

Norbert's father was innovative. He developed a steam-operated cotton baling press. He wanted the best for the place he worked in, and most of all, he wanted the best for his son.

Norbert was a very curious child. He grew up asking lots of questions. He was encouraged by his father to explore, to ask, and to learn. The machinery around the plantation particularly interested him.

It was difficult to find a school in the area for Norbert because he was black. Vincent Rillieux decided to send Norbert to Paris to study at L'Ecole Centrale. Norbert excelled at his studies and upon graduation, he taught mechanical engineering at the school. He was twenty-four years old. In 1830, he published a series of papers on steam engine work and steam economy. It was during this time that he conceived of the theory of multiple-effect evaporation.

Rillieux's theory benefited sugar production. He had watched the slaves work in the process called the 'Jamaica Train.' This produced a dark form of sugar. The slaves were forced to pour hot sugar-cane juice back and forth from one large kettle to another in order to speed the evaporation process of the liquid. This was an extremely dangerous operation.

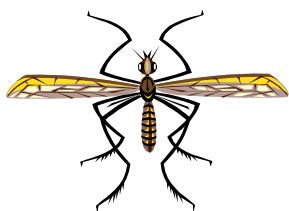
Norbert Rillieux designed vacuum chambers that allowed the sugar to retain its sweetness while it is refined in granulated form. His invention provided the basis for today's evaporating processes. He was able to test his device on a plantation at Myrtle Grove. His invention proved a great success. This machine took most of the danger away, and it required one man to operate the machine.

The experiment helped to reduce the price of sugar for all consumers of the product. Sugar refineries from Louisiana, Cuba, and Mexico purchased the invention. Soon manufacturers of other products adapted the machine to fit their needs. The evaporator helped to reduce the cost of soap, glue, condensed milk, paper, and gelatin.

Rillieux experienced personal difficulty. He was confronted with more and more restrictions because of his heritage. Freeman were not permitted to send their children to the city public schools.

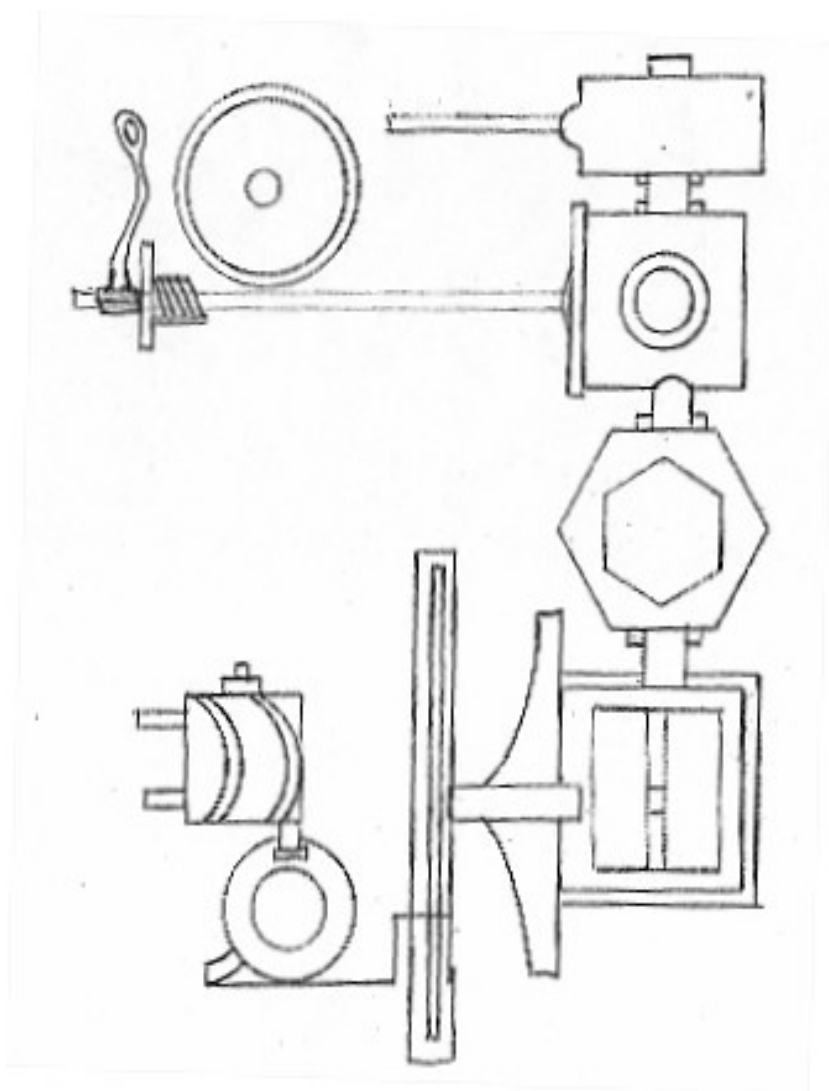


They were not permitted to attend meetings held by slaves because they may help them to escape their masters. Free blacks and slaves had to carry special passes in order to walk the streets of New Orleans. Even though he came from a wealthy family, he was not allowed to live freely in his own country.



New Orleans had to deal with the frightening problem of yellow fever. Rillieux helped to develop a way to drain the swamps and stop the mosquitoes from breeding. He took his plan to the New Orleans Sewage Department and they turned it down because they might not accept the innovative help of a black man. Some years later they decided to use his plan. He returned to Paris because he was disgusted with his treatment.

Rillieux died on October 8, 1894 in Paris. He never returned to the United States.



Rillieux's vacuum pan invention



Benjamin Montgomery

Can you imagine walking about 1000 miles hitched to a wagon from Virginia to Mississippi? Benjamin Montgomery was eighteen years old when he endured this brutal trip because he was a slave purchased by a new master Joseph Davis.

Davis was the brother of Jefferson Davis. As you know, Jefferson Davis became the president of the Confederate States of America.

Finally, they arrived at their destination, Hurricane Plantation at Davis Bend in Warren County. He missed his birthplace in Loudon County, Virginia. He was a valuable slave because he had trained as a mechanic in Virginia. Davis saw his potential and soon made him general manager and mechanic on his plantation. He was taught to read, survey land, and draw architectural plans. As a result of his training, he designed and constructed several large buildings on the Davis' Plantation.



The Davis Plantation was built near a river. Many plantations used the river to transport their cargo to and from their property. There was a need for better navigational equipment on the steamboats. Montgomery created a superior propeller that used the canoe paddling principle. The steamboats' blades could cut through the water at any angle. This provided less resistance and better maneuverability in the water. He had hopes of designing a propeller that would work with a steam engine.

The two Jefferson brothers wanted to patent the propeller. Slave owners were not permitted to claim their slave's designs. Yet slaves were not considered human beings. They were property without rights; therefore they could not assert their rights to a patent. Montgomery and the Jefferson brothers were unable to secure the rights to the patent at that time.

Despite the problems of recognition for his work, Montgomery continued to create. He designed improvements to the cotton baling presses on the plantation. He also encouraged fellow slaves to invent practical items and techniques that would improve their working lives. Peter R. Campbell, a fellow slave, invented a steam-powered press after he was freed. He successfully applied for a patent on April 1, 1879.



Twenty years after the Civil War, Montgomery was able to show his propeller at the Cotton Centennial in New Orleans, Louisiana. He also showed his invention at two other events, Chicago's World Fair and Southern Exposition in Atlanta in 1895.

Other members of the Montgomery family were creative. Benjamin's brother, Peter T. Montgomery invented a device that was able to hold documents and books that could be read or copied. Isaiah Montgomery, Benjamin's son was the founder of an all black town, Mound Bayou, Mississippi.



Imagine This!

Name: _____ Date: _____

Direction: The topic of slavery has been alluded to in this unit. Imagine that you are from a different ethnic group. What problems would you face? Write a list of at least ten problems that you might have. Use the lines below.



Jan Earnst Matzeliger



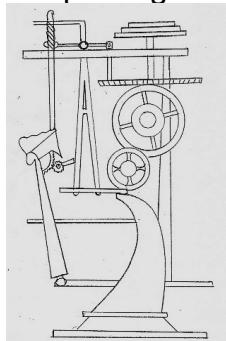
When he was born on September 15, 1852, he was a native of Paramaribo, Surinam (Dutch Guiana). Jan Matzeliger was of mixed heritage. His mother was a black native of Surinam, a slave, and his father was a Dutch engineer. The elder Matzeliger was in charge of the government machine ships. At the age of ten, Jan worked as an apprentice in these shops. He had remarkable mechanical skills.

At nineteen years old Jan decided he wanted to leave his native land. He managed to contract a job on an East Indian merchant ship. He worked two years at sea and had the opportunity to visit many places. He finally left the ship in Philadelphia. He managed to survive by doing odd jobs. One of the jobs was an apprenticeship to a shoemaker.

In 1876, Jan Matzeliger left Philadelphia and traveled to Boston. He worked there for a year and then moved to Lynn, Massachusetts. At that time, Lynn was known for its shoe industry. The Harney Brothers was a shoe manufacturing company in that town. Jan operated a shoe sole sewing machine and cleaned the factory floors.

Matzeliger, had trouble with the English language, so he decided to attend adult night classes to improve his language skills and learn other academic subjects. He enjoyed painting pictures. During this time he tried to attend and officially join a church. He was denied admission by all the denominations in that town with the exception of North Congregational Church. He never forgot his experience with the churches.

It was during that time that he noticed the shoe lasting, the process of connecting the shoe upper to the sole, was performed by hand. This hand worked method restricted the number of shoes a cobbler could complete in a day. Top workers were able to last an average of fifty pairs a day. Matzeliger determined to invent a device that would complete the job faster. He studied the lasters' techniques and would take their scraps to work on his invention at nights. He drew and experimented using cigar boxes, string, and wood. Finally, after six months he successfully made a crude machine. He showed it to his employer who offered him \$50.00 for his invention. Matzeliger declined the offer, and decided to work on improving what he had done. Nearly all of his resources



were used for the project. He would spend pennies a day on food. Lack of heat, and poor nutrition resulted in sickness.

He wanted to work on a third design so he contracted with two men to supply the funds. These businessmen, Melville S. Nichols and Charles H. Delnow decided to fund the project if they got two thirds of the profits. On March 20, 1883, Matzeliger patented the perfected shoe lasting machine. This machine revolutionized the shoe business. Production costs were cut in half. A worker was able to complete ten times more pairs of shoes. The world market heard about the machine and demands for it grew.

A school was opened to train boys to operate the machine and the graduates were sent out across the country and around the world. This machine proved to be so successful, it resulted in hand shoe lasters losing their jobs.

Three years after the patent was official, Matzeliger contracted tuberculosis. He was bedridden for three years. Even in his weakened state, he continued to conduct experiments and paint. Sadly, he died on August 24, 1889 when he was only thirty-seven. He never married, but had a foster son.

Matzeliger bequeathed the North Congregational Church the majority of his stocks in the companies that held the rights to his invention. He stipulated that the denominations that rejected his request of membership would never be recipients of his estate.



Granville T. Woods

April 23, 1856 Granville T. came into the world as the son of free blacks, Tailer and Martha Woods. Fortunately, he was born free. An avid student, Granville had to give up school when he was ten. His family needed him to help with financial assistance in a time of poverty. Learning took on a different method when he went to work in a machine shop. He began rudimentary experiments and inventions.

Granville moved to Missouri when was sixteen. There he worked as a railroad fireman and engineer. His fellow workers saw that he loved reading and helped by lending books to him. He also augmented his learning by borrowing from the local library. Science was his passion and he practiced what he learned from his studies when he was at work.

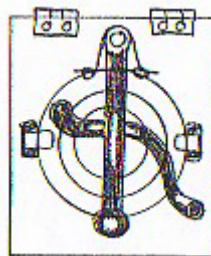
The desire for a better life took him to Springfield, Illinois and New York City. At both destinations, he worked in a steel mill and other machine shops. However, he wanted to attend an electrical and engineering school and learn in a classroom setting.

Woods secured a job as an engineer on Ironsides, a British steamship. The job took him on a two-year journey that allowed him to see the world and learn about life in other places. He left the ship, and took another engineering post on the Danville and Southern Railroad.



In 1881, Granville Woods decided to open his own electrical equipment factory. He found a location in Cincinnati, Ohio. When he was twenty-eight, he filed for his first patent. His design improved the steam boiler furnace for steam driven engines.

On December 2, 1884, Woods officially received another patent that would change the course of his life. He had invented a more powerful and clearer telephone transmitter. One year later another device was patented. This one combined the telegraph and the telephone. Woods coined the invention "telegraphony." An operator could simultaneously receive both oral and signal messages over the same line without changing the instrument and without understanding Morse code. The device was sold to the American Bell Telephone Company of Boston, Massachusetts for quite a sum of money.



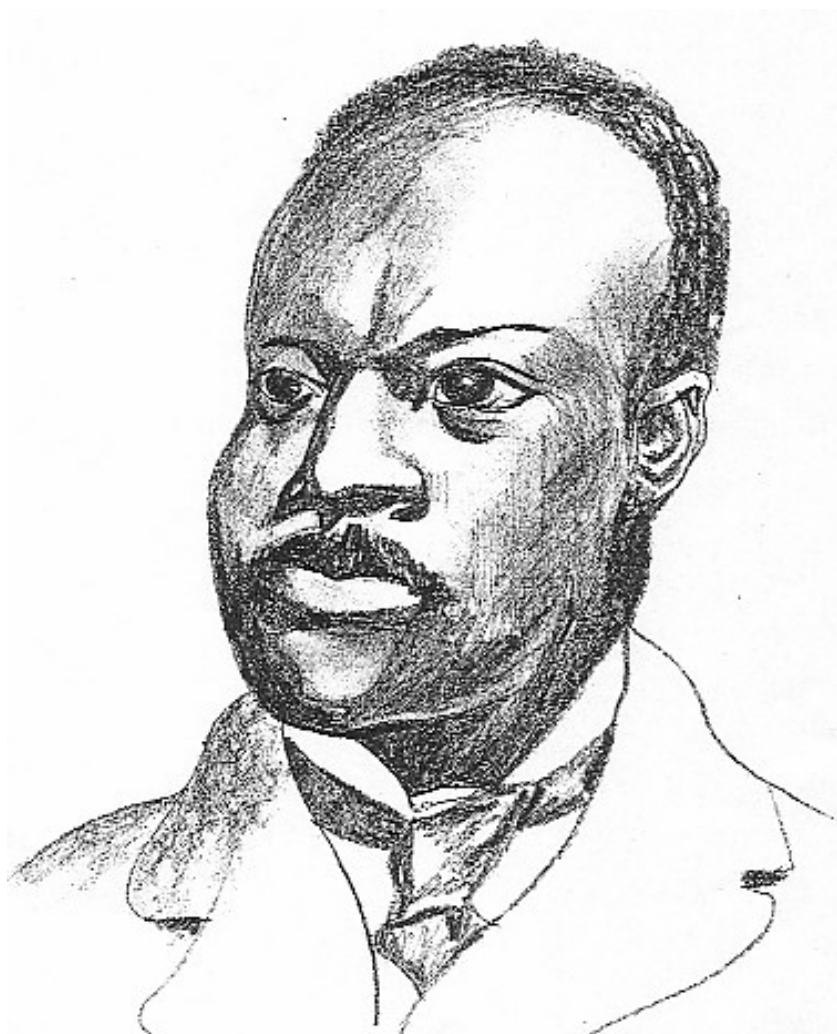


Woods' next invention was helpful to the railroad industry. He received a patent on November 15, 1887. The invention made it possible for conductors and engineers on moving trains to send and receive messages. This was the first time that this happened in railroad history. The success of this invention resulted in the Woods Electric Company. Granville received orders from around the world.

In 1890, Granville Woods decided to settle with his brother Lyates Woods another inventor. Their partnership resulted in over sixty patents. The third rail invention was created from this partnership. This principal is used in subway systems throughout the world. Another rail was placed along the train track. It held the electrical power needed to move the trains. It eliminated the need for an electrical generator on the train. This patent was sold to the General Electric Company of New York.



In 1910, he died of a stroke in New York City.



Elijah McCoy



In Colchester, Ontario on May 2, 1843, Elijah McCoy was born free. He was one of eleven brothers and sisters. His parents, Mildred and George McCoy had been Kentucky slaves who escaped to freedom via the Underground Railroad. Canada was their final destination and once free, they settled in the Colchester area for a few years. Later, they decided to return to the United States and resided in Ypsilanti, Michigan.

Elijah went to school. He was fascinated with machinery and was able to secure a job in a machine shop in Ypsilanti. His curiosity increased, and he wanted to learn more. His parents decided to send him to Edinburgh, Scotland where he could study mechanical engineering. He apprenticed while studying in Edinburgh. Later, he returned to Michigan and decided to seek employment in Detroit. His heritage prevented him from getting a job as an engineer so he had to settle for working as a fireman for the Michigan Central Railroad. It proved to be a good base for his career. One of his duties included oiling the locomotives' engines. Each part of the process was worked by hand. The engines needed to be shut down to complete the work effectively. Often the job was also the work of hired children called 'grease monkeys'. These children lived and worked in dangerous and deplorable conditions. Shutting down the engines caused the railroad to lose time.

McCoy saw the need to improve the quality of each worker's working life. He worked at creating a device that was a drip cup attached to an engine and machine. It automatically dripped the oil to the moving parts in an engine. Finally, he perfected his design and patented it on July 2, 1872. A year later, he had improved his design and secured a second patent for the improvement. Due to the fact that he needed money to continue to research and design, he sold some of his patents.

Locomotive engineers were hesitant to use McCoy's new design. They were not convinced that there was no need to stop the engines and open them up to oil each section. When favorable customer testimonies were heard, orders poured in for the device. McCoy was able to eventually use the money he received to improve aspects of the railroad and manufacturing world. He was able to get forty patents on his designs.

McCoy did not receive most of the money collected through sales of his inventions because he had sold most of his patents without securing royalties for himself. Manufacturers made millions on the lubricating systems.

Even though he was poor at the end of his life, McCoy spent his advanced years encouraging young people to strive for their dreams and to create. He died at the age of eighty-five.

It was common to hear purchasers of any type of machinery to enquire whether the automatic lubricator was the 'real McCoy.' Today, we use the term to determine whether an article is genuine.



Pearl of Great Price

Name: _____ Date: _____

Directions: The lives of American innovators have had obstacles that they have used to make life better for themselves and others. The pearl is formed when a grain of sand enters the clamshell and the creature within secretes a substance layer by layer that eventually forms into a pearl. What prices did the innovators pay to make pearls in their lives? Choose two and write in paragraph form how their life obstacles were made into pearls.



Needed

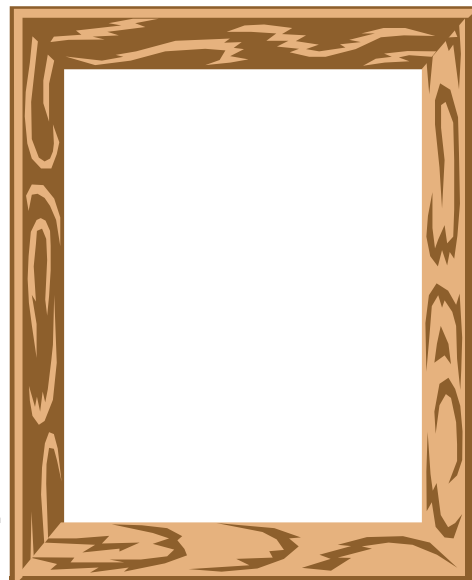
Name: _____

Date: _____

Directions: Fill in the needed sign for one of the characters in a book that you read this month. Draw a picture of the character in the box below.

Character's Name: _____

Needed for:



Description:

Last seen: _____

Reward: _____



Lewis Howard Latimer



George and Rebecca Latimer ran away to freedom and hid in the hold of a steamer on the way to Baltimore. George was light skinned, so he posed as a Virginian planter and his wife Rebecca posed as his servant. Their destination was to the city of Boston.

Alas, George was cited by another slave owner who recognized where he came from. He was arrested on October 18, 1842 as a fugitive. Notable abolitionists, such as William Lloyd Garrison, Frederick Douglass and others heard of the arrest and decided to raise \$650 to purchase George's freedom. After spending a month in jail, he was finally released.

Life continued to remain difficult for the couple. They had four children, George junior, Margaret, William and Lewis. George senior was so traumatized by the fear of recapture as a slave, that he deserted his family when Lewis was ten years old.

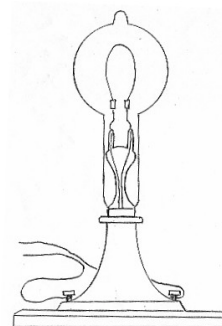
Mother Latimer wanted her children to get a good education. She sent Lewis and William to a rural school. Lewis ran away at fifteen then enlisted in the Union Navy in order to fight to abolish slavery. He lied about his age, but was able to enlist. Lewis was made a 'landsman' on September 16, 1864. He was honorably discharged on July 3, 1865. His two older brothers also fought in the Union's land battalions. They wanted to make a difference. They were passionate about helping to end slavery. It was during this time of turmoil that he began writing poetry. He continued this hobby throughout his life.

When Latimer returned to Boston, he worked for patent lawyers, Crosby and Gould. He became their top draftsman. Latimer drew Alexander Graham Bell's telephone patent application.

Thomas Edison's invention of the electric lamp excited Latimer's imagination. He decided to invent, as well. *Water closet for Railroad Cars* was Lewis's first patented invention when he was twenty-six years old. This invention added a pivoted bottom that would automatically close when the seat was opened and opened when the seat was closed.

Hiram Maxim, chief engineer for the United States Electric Lighting Company hired Latimer as a draftsman in 1880. This was a time of growth for Latimer because he studied all aspects of the electrical world. Significant improvements resulted in the design of the incandescent light bulb, specifically; how the carbon filaments were made and mounted. On September 13, 1881, Latimer and Joseph V. Nichols patented their electric lamp.

The 'Process of Manufacturing Carbons' was arguably the most important patent

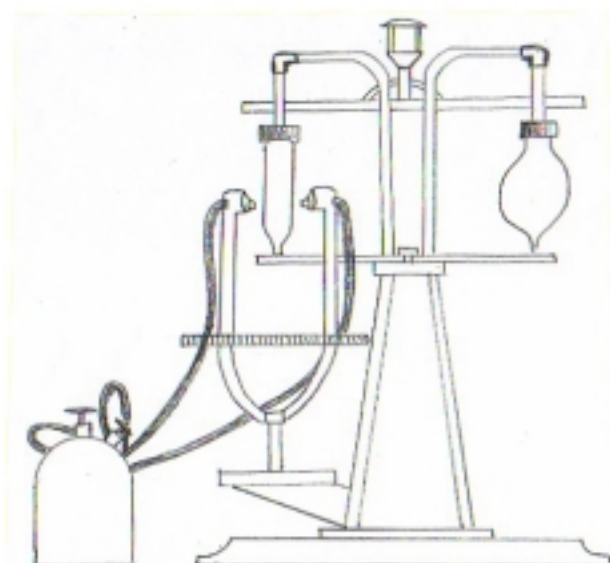


that Latimer secured on January 17, 1882. Latimer's filament was superior and lasted much longer than Thomas Edison's. Maxim sent him to New York City, Philadelphia, Canada, and London to set up electric lighting plants in several large buildings in those cities and countries.

In 1884, he was asked to join the Edison Electric Light Company. By 1890 Latimer was transferred to the company's Legal Department. He helped Edison successfully defend his patents in court as an expert witness. After that experience, Lewis Latimer wrote a book that defined the standards on electric lighting.

During this time, Edison Electric Light Company became General Electric Company. In 1896, this company joined with Westinghouse to form the Board of Patent Control. This board helped to regulate other companies illegally using patents. Latimer worked as the Board's chief draftsman and expert witness until its demise in 1911.

On December 11, 1928, Lewis Latimer died as a result of a long illness. He left his wife, Mary Wilson and his two daughters, Louise Rebecca and Emma Janette. They knew him as a family man as well as a pioneer scientist. They also knew that he left a legacy of poetry.



Lewis Howard Latimer

Poet

Name: _____

Date: _____

Directions: Read the following poems by Lewis Howard Latimer. On a separate piece of paper, complete the activities on the following page.

The Worker

Up in the morning, early
Before the break of day
To eat if I had food to eat
And to my work away...

And it's day and night and morning
Through each succeeding year.
'Neath the spur of keen necessity
Or the presence of a fear
A fear that haunts me ever
Through each succeeding day
That those who give the means to live
May take the means away.

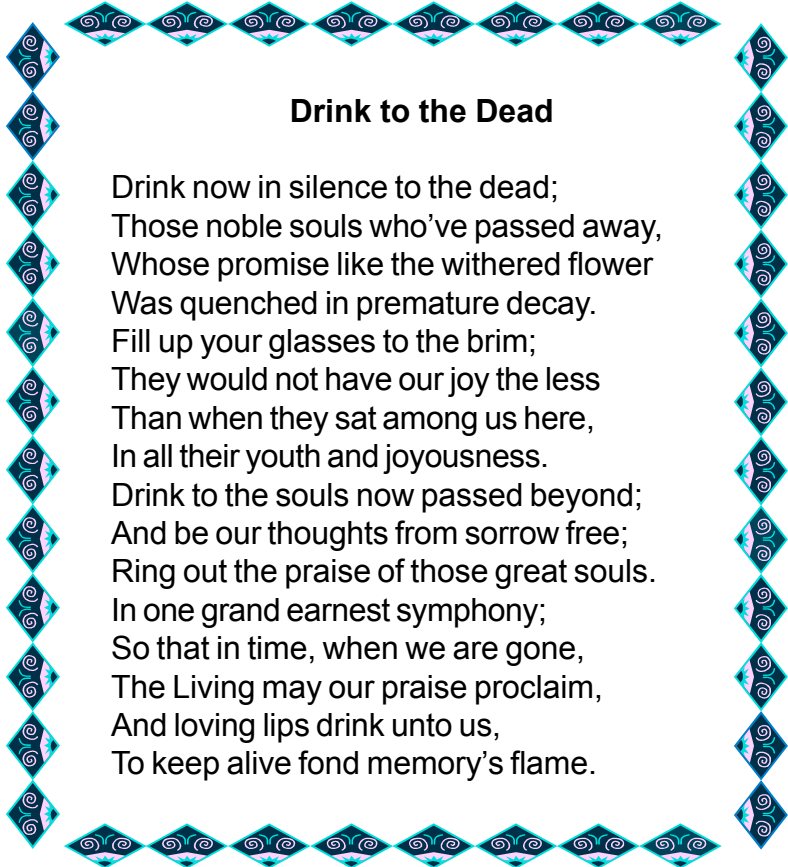
Ebon Venus

Let others boast of maidens fair,
Of eyes of blue and golden hair;
My heart like needles ever true
Turns to the maid of ebon hue.

I love her form of matchless grace,
The dark brown beauty of her face,
Her lips that speak of love's delight,
Her eyes that gleam as stars at night.

O'er marble Venus let them rage,
Who set the fashions of the age;
Each to his taste, but as for me,
My Venus shall be ebony.





Drink to the Dead

Drink now in silence to the dead;
Those noble souls who've passed away,
Whose promise like the withered flower
Was quenched in premature decay.
Fill up your glasses to the brim;
They would not have our joy the less
Than when they sat among us here,
In all their youth and joyousness.
Drink to the souls now passed beyond;
And be our thoughts from sorrow free;
Ring out the praise of those great souls.
In one grand earnest symphony;
So that in time, when we are gone,
The Living may our praise proclaim,
And loving lips drink unto us,
To keep alive fond memory's flame.

Activities

1. To whom does Leslie Howard Latimer refer in the poem called The Worker?
2. Why would the worker not be able to eat breakfast on some mornings?
3. The words used in Latimer's poem give you a sense of the hard life of The Worker. List the problems The Worker faces in the poem.
4. In Ebon Venus, the poet describes why he prefers black women. List the words that convey his feelings.
5. The poem Drink to the Dead conveys a salute to a loved or admired person who died. How would you remember someone who passed away?
6. Jesus died and has risen. How do you salute Him in your daily life? Write a salute to Jesus.
7. Create your own poem conveying one of the themes in the poems above.



Andrew Jackson Beard

In a small town called Eastlake in Jefferson County, Alabama, a slave boy was born. The date of his birth was not recorded. The baby was named Andrew J. Beard. He lived and grew up like most slaves of the time. He loved to observe, ask questions and experiment.

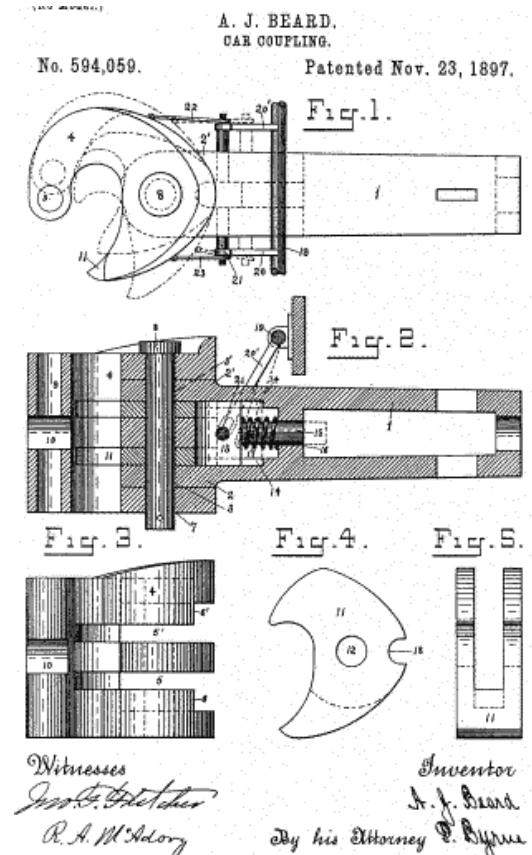
After he was freed through the Emancipation Act in 1865, he ventured out on his own. He was not discouraged by failure. He tried many jobs and was able to build a better life and monetary security with each new change.

On one occasion he farmed for about five years and decided to visit Montgomery in 1872 in order to sell his load of apples. He loaded his fifty bushels onto the wagon. He eventually sold each bushel for about \$4.00 each. He complained that it took him three weeks to make the trip for such a small return on his produce. He decided that farming was not for him and walked away.

His work on the farm was not in vain because he designed a flourmill. His observation at the mills and farms helped him to design plows. He finally patented his invention in 1881 and sold it three years later for \$4,000. On December 15, 1887 he sold another plow's patent for \$5,200. Next he turned his attention to the real estate business and purchased plots of land and houses. He accumulated \$30,000 over a period of time.

He was still restless, so he ventured out to secure a job in the railroad industry. It was while he was employed in an Alabama rail yard that he witnessed many accidents. The most severe injuries took place when the train cars were coupled. Coupling was a very dangerous operation; it was a workman's duty to run along the top of a freight train then quickly climb down between two cars and insert the pin to join the cars as they came together. On several occasions men's arms and legs were crushed beyond repair.

Beard determined that he would invent an automatic way to couple the cars without humans being involved. He worked for months on this problem. Sometimes he could not sleep or eat. Eventually, he devised a system and obtained a patent. He sold the rights to his patent in 1897 for more than \$50,000 to a New York firm. He continued to invent and secure patents. His devices helped make life easier for the railroad industry.



Garrett Augustus Morgan



He was the seventh child of eleven siblings. Born in Paris, Kentucky on March 4, 1877 Garrett Augustus was destined to succeed. Like other budding inventors, he had a curiosity about his work. He had big dreams.

Garrett's parents were, his father Sydney Morgan who was a mulatto, and his mother, Elizabeth Reed Morgan who was a mixture of Native American and Black. She was a former slave who obtained her freedom in 1863.

The only education Garrett received was an elementary one. When he was fourteen, he decided to leave home to seek his fortune. Can you imagine him leaving his home to seek a better life with only ten cents in his pocket? Eventually, he reached Cincinnati, Ohio. He worked for a white landowner as a general handyman. That job did not pay well.

As a result, he decided to move on and went to Cleveland where he taught himself to use a sewing machine. He was able to find an occupation as a sewing machine adjuster. Morgan gained experience through repairing these machines while he worked for different companies.

It was during this time that Morgan fell in love and married Mary Anne Hassek. They would spend fifty-five years together. Their union resulted in three sons and seven grandchildren. He purchased a home for his wife and children, and also invited his mother to live with him when he established his businesses.

Morgan wanted to be independent. He wanted to be his own master, and was able to save enough money to start his own business. He became successful at repairing, and selling sewing machines. Shortly after, he added a tailoring shop that produced dresses, coats and other tailored goods. This expanded his work force to more than thirty employees.

The tailoring shop was experiencing a problem, when woolen cloth was used. The friction between the needle and cloth scorched the fabric. What could be done to reduce the friction? Morgan began to experiment at home by mixing various chemical solutions that would lessen the possibility of scorching.

One evening, as he was mixing a solution, his wife called him to supper. He wiped the substance off his hands and onto a pony fur scrap of material before joining his family at the dinner table. When he returned to his laboratory, he noticed that the fuzzy texture of the cloth had straightened. Morgan realized that the substance he had mixed needed to be tried on other things to be sure of its worth. He experimented on his next-door neighbor's dog to see if its hair would straighten. The solution worked so well that the dog's master did not recognize his pet when he returned home.

Next, Morgan experimented on his hair a little at a time. It worked! He decided to manufacture the product as G.A. Morgan Hair Refining Cream. Thus another business was created. The G. A. Morgan Refining Company still exists in Cleveland, Ohio today.



In 1912, Morgan invented the Safety Hood that was later renamed as the gas mask. He received a patent for the device in 1914. The item was designed as a hood to be placed over the user's head. A long tube that extended to the floor was attached at the base of the hood. This allowed fresh air to flow through the tube beyond the dangerous gases and fumes. The lower end of the tube was lined with an absorbent material such as a water-filled sponge. Morgan designed this for firemen to use when they entered buildings that were filled with smoke and gases. He also fitted the hood with an adjustable valve that allowed exhaled air to be released.

The National Safety Device Company (NSDC) contracted with Morgan to manufacture and sell the Morgan Hood. They asked him to oversee the project as the general manager. Stocks in the company climbed from \$10.00 to \$250.00 when buyers heard of this invention and read reports of successful experiments conducted in ice-producing plants, and demonstrations held by NSDC.

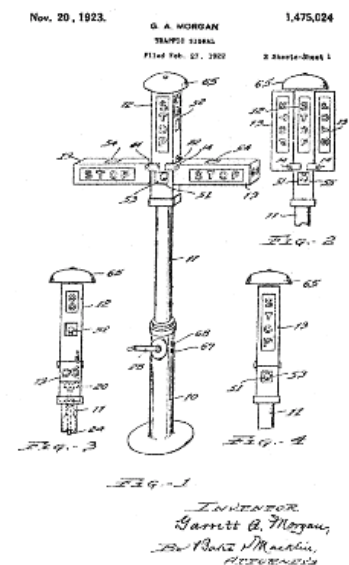
Another important demonstration was undertaken on July 24, 1916. A devastating explosion occurred in a tunnel of the Cleveland Water Works situated 250 feet below Lake Erie. The tunnel immediately filled with smoke, dust, and harmful gases. Thirty-two men were trapped below. The need to rescue was urgent. Garrett Morgan and his brother answered the pleas to assist in the rescue and recovery. This was a valuable time to demonstrate the effectiveness of the hoods. They were lowered through the tunnel wearing the devices. Fellow workers and relatives were all anxiously waiting at the entrance of the tunnel. All the trapped workers were retrieved from the tunnel. Some had died. However, the Morgan brothers were unharmed by the noxious fumes. Newspapers around the country carried the heroic story. Morgan was awarded medals given by Cleveland's prominent citizens, and the International Association of Fire Engineers.

Request for the hoods came from fire departments, police departments and mining companies across the United States. As a result, Morgan set up his company to manufacture the hoods. Orders from the south stopped when they heard the inventor was black.

Morgan was not deterred. He had more ideas for safety devices. He realized that there were increasing problems because of horse drawn carriages and the motorized vehicles colliding at intersections. He determined that electric light signals placed at intersections would prevent related accidents. He patented his design in the United States in November 1923. He also secured patents in the United Kingdom and Canada. Later, the rights to the signal were sold to the General Electric Corporation for \$40,000.

Other inventions were a part of his portfolio. He had a mind that was very fertile. Garrett Morgan invented a woman's hat fastener, a round belt fastener and a friction drive clutch. He was always seeking ways to improve life around him. Even when he developed glaucoma in 1943 and lost 90% of his sight, Morgan never gave up his work and interests.

He died on July 27, 1963 after a two-year illness. He was eighty-six. Mary, his wife, died five years later at the age of eighty-four.



Morgan's traffic signal. (Courtesy of Garrett A. Morgan, Jr.)



George Washington Carver



In 1860 when slavery was still a reality, George Washington Carver was born in "Diamond Grove" in Missouri. He was only two weeks old when his father was killed while hauling wood from the farm into town. Shortly after, kidnapers took George, his mother, and his sister. Mr. Moses Carver, George's master found out where he was and sent a worker to get and return him to his home. At the time, his mother and sister had disappeared and were never found. George had whooping cough and was close to dying. Fortunately, he recovered and grew up with a growing interest in plants. The neighbors called him the 'Plant Doctor'. He wanted to be a scientist.

His education began in Neosho, Newton County. George had to work as a farm hand and attend a one room, one teacher elementary school. He attended Minneapolis High School in Kansas and graduated at the age of twenty. His aptitude and work ethics earned him a scholarship to Highland University also in Kansas. It was disappointing for him when he showed up at the university and the president informed him that he would not be allowed to attend because he was black.

George went back to working on a farm and saved money towards a college education. In 1887, he was accepted by Simpson College, a Methodist school in Iowa. He supported himself by ironing shirts, darning and patching the socks belonging to several students.

Etta Budd his college art teacher saw that he had remarkable talent and encouraged him to go to Paris for further art training. Carver was not really interested in pursuing an art career. He wanted to be a scientist. He exhausted his use of the college laboratory and left Simpson to enroll in Iowa Agricultural College. This school offered more opportunities to study and experiment. He graduated with a B.S. degree in 1894. He was hailed as an outstanding scholar and offered a faculty position. He was the first black to serve on the school's faculty.

George Washington Carver taught agriculture, bacterial botany and directed the operation of the school's greenhouses. While he was performing those tasks, he was completing graduate work. He and his teacher collaborated to conduct experiments on plant pathology. In 1895, they published the results of the prevention and cure of specific fungus diseases that destroyed cherry and currant plants. Carver continued to study another kind of fungus called rust that attacks wheat, oats, blackberry and carnations. He investigated types of soil, moisture, sunlight, rootings, cuttings, the reproduction of plants and problems that arose.

In 1896, Carver received a Master's degree in Agriculture. The next year he reported for the first time that he had found a new fungus called *Taphrina*. It grew on silver and red maple trees. In all, three fungi were named after him: they were *Taphrina Carveri*, *Collectotrichum Carveri* and *Metasphaeria Carveri*.

He was also the first to report a fungus that caused the soybean to become diseased.



At that time, the Tuskegee Institute asked Booker T. Washington to write a letter inviting Carver to join their faculty. The Tuskegee Normal and Industrial Institute for Negroes desperately needed him. It is stated that he simply replied, "I am coming."

Carver was made director of agriculture, and director of the Research and Experiment Station. He was given twenty acres of barren soil in which to plant. He was not daunted. He with his students planted cowpeas and legumes. These plants helped to enrich the soil with nitrogen. Following that crop, he planted sweet potatoes and then cotton. The soil had become so rich that he was able to harvest 500 pounds of cotton on each acre of land. Of course this attracted the local farmers; their cotton yield was not nearly the amount of Carver's crop. Crop rotation became the practice in that area. Carver advised the area farmers to plant peanuts because they were easy to plant, grow, and harvest. They were rich in protein, and good feed for the livestock.

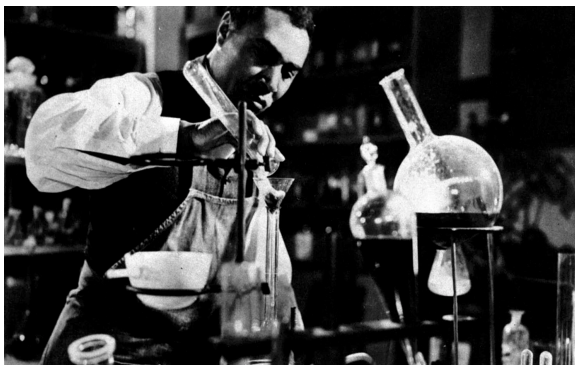
When the area farmers had an over abundance of peanuts rotting in their barns, they angrily looked to Carver to solve their problem because they thought they were tricked. His inadequately fitted laboratory now became a station of command to solve the pressing problem. It took him a week to discover two dozen products that could be produced from the peanut. The following were some of the by-products he created from the peanut: cheese, milk, cream, buttermilk, instant coffee, face powder, printer's ink, butter, shampoo, vinegar, dyes, soap, and wood stains. It took Carver a lifetime to discover a total of 325 products made from the lowly peanut.

The farmers were once again happy about their peanut crops. They were able to supply the many industries that were now using the peanut in manufacturing their goods. Farmers were getting more for their peanuts than their tobacco or cotton crops.

The sweet potato was another focus of Carver's attention. He invented 118 products made from this root vegetable. It is a fact that in World War I, the United States Army used the sweet potato flour to mix with wheat flour to make bread. There was a critical shortage of wheat during the war.

Carver also made seventy-five products from the pecan and several hundreds of products from waste materials such as corn stalks. From cotton he made insulating boards, paper, rugs, cord and paving blocks for highways.

During the war, aniline dyes from Germany became unavailable. Carver set to work on the Alabama clay. He was able to extract quality dyes and paints that proved far superior to the German dyes.

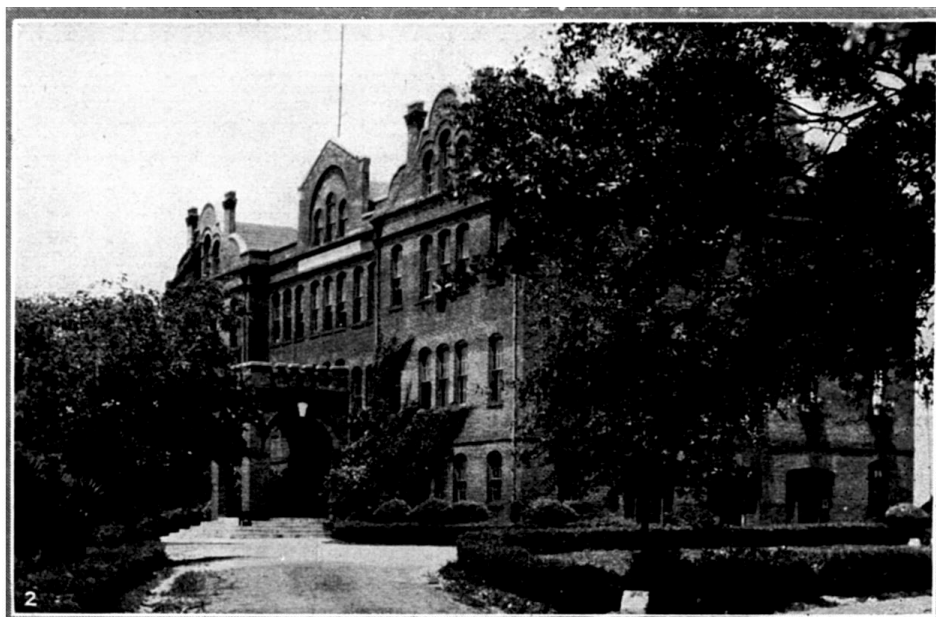


In 1921, Carver was asked by the peanut growers in the South to testify in their behalf before the Ways and Means Committee of the US House of Representatives. The growers wanted to institute a tariff on foreign competition. He was told that he had ten minutes to speak. He took a huge suitcase of products that he had made from the peanut and explained how they could be made and their value. He was encouraged by members of the committee to continue his presentation. As a result, the bill was passed to include the protection of the peanut on the tariff.

His fame was renowned. Many public figures from around the world visited him at Tuskegee. They wanted to learn about his work and to see what he was actually working on in his laboratory.

Henry Ford, and Thomas Edison offered Carver lucrative jobs and superior laboratory facilities. He turned them down because he knew that Tuskegee needed his expertise; and he was concerned about the young people he was training.

George Washington Carver worked at Tuskegee for forty-seven years. He was loved and respected by his peers and students. When he died on January 6, 1943, his savings of \$33,000 was willed to help other scientists at the College. The Carver Research Foundation was established in his honor.



By - Products

Name: _____ Date: _____

Surviving in the twenty-first century means making the most out of what you have. Many of the innovators in this unit used the materials around them and created useful devices or products.



Directions: Today we use many things that are by-products of oil that is drilled from the earth. Research the uses of petroleum via the internet and other sources. How does it impact our society? Present your findings by using the computer to prepare report.

Note: This project may be completed individually or in a group. Use the following outline to help you organize your report.

Topic _____

Purpose:

Summary:

Conclusion:

Resources Used:

Members in the Group:



Got Lemons? Make Lemonade!

Name: _____ Date: _____

Directions: George Washington Carver was able to make several things out of various plants. Can you follow directions? Well, follow one of these recipes.

Old Fashioned Lemonade

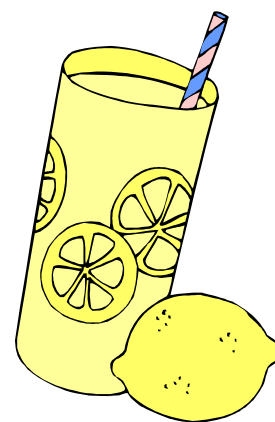
8 lemons, slice 1 thin

1 1/2 cups sugar

3 cups hot water

1 quart cold water

1. Cover half of the sliced lemon with sugar. Put aside the other half for garnish.
2. Squeeze the remaining lemons. Make sure that there are no seeds in the juice.
3. Add the juice to the sliced lemons in the bowl and cover with 3 cups of hot water. Do not stir. Allow the mixture to cool at room temperature.
4. Transfer to a serving pitcher and pour in the cold water. You may change flavor to your personal taste.
5. Chill and serve with a garnish of sliced lemon hooked over the rim of the glass.



Red Lemonade

George Washington Carver may have used this recipe. It was popular among African Americans during his lifetime.

7 lemons

1 cup water

1 1/2 cups sugar

fresh sprigs of mint or lemon slices for garnish

1 quart water

1 1/2 pints fresh raspberries or 16oz frozen, unsweetened raspberries-thawed

1. Combine the lemon juice, sugar and the quart of water in a small saucepan.
2. Bring to the boil over medium heat. Make sure that the sugar is fully dissolved.
3. Reduce the heat and simmer for 5 to 7 minutes.
4. Allow the syrup to cool.
5. To Serve: Place 1/3 cup syrup in a tall glass and fill with sparkling water and ice.



Clove Lemonade

3 cups water

Juice of 8 lemons

1 ½ to 2 teaspoons ground cloves

4 ¼ cups sugar

Sparkling water and ice

1. Combine 3 cups water, lemon juice, cloves and sugar in a small saucepan.
2. Bring the mixture to a boil over medium heat. Boil until the sugar dissolves.
3. Reduce heat and simmer 5 to 7 minutes.
4. Allow the syrup to cool and place 1/3 cup syrup in a tall glass.
5. Fill the glass with sparkling water and ice.

Now what about you? Try creating a recipe of your own. You may use lemons or another fruit to make a beverage, pie, or appetizer. If you have a favorite family recipe that you want to share; make it and bring it to school to share with your classmates.

Recipe Title _____

Ingredients

Preparation



Madame C. J. Walker



She was born in Louisiana to Minerva and Owen Breedlove just two years after emancipation. Her given name was Sarah, and she did not have her parents for too long. They died when Sarah was six years old, and she was left in the care of her older sister, Louvinia.

Sarah's lot was hard. She grew up in poverty, working from dawn to dusk in the cotton fields near the southern shores of the Mississippi. She was unable to read and write yet had shown a talent for invention. Sarah determined to be independent and successful.

Misfortune seemed to plague her early life. Sarah married Moses McWilliams when she was only fourteen years old. They had one child, a daughter, Lelia. By the time she turned twenty, Sarah McWilliams was made a widow. Her husband was lynched by a mob. The dire circumstances of her life did not repress her. She considered Lelia was her wealth; and Sarah determined that she would do whatever she could to make a better life for her small family. Mother and daughter moved to Vicksburg, Mississippi, then to St Louis. Most of the jobs she could find were domestic ones such as washing, ironing and cleaning for white families.

Stress caused her hair to fall out. So Sarah began to experiment with an assortment of minerals and animal oils to find a remedy. After recalling a dream she had, Sarah noted that certain herbs from Africa could be used to help her hair to grow. She sent for the product, and found that her hair grew in faster than it had when it had fallen out. Madame was able to mix these ingredients with other herbs to make her own product.

By 1905, Sarah had moved to Denver to help her sister. She began selling her hair formula to her neighbors. She met C. J. Walker and grew attached to her new appellation Madame C.J. Walker. This was the name she continued to use for the rest of her life. Her new husband was a newspaperman. He encouraged her to advertise her products in his paper. This was the beginning of her mail order business.

During that year she fashioned a wooden handled metal straightening comb. It was heated over flames on a stove. The hot comb was designed so that it could be pulled through the hair that had been prepared with Madame Walker's oil. The process and equipment were the 'Walker System.'



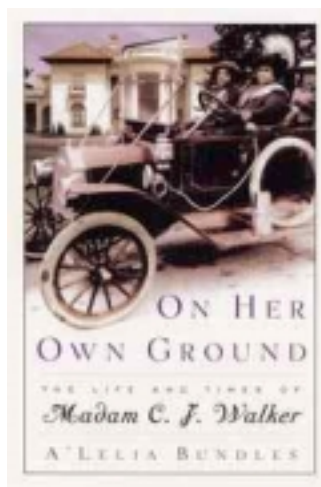
In 1908, Madame Walker left her husband and took her daughter with her to Pittsburgh, Pennsylvania. She was determined that all black women should benefit from her system. Thousands of agents were hired to demonstrate the Walker System door to door through out the country. By 1925, there were over 25,000 agents working for her.

Her workers were loyal and capable. Her company became one of the United States' largest employers of African American women. Her employees were uniformly dressed in dazzlingly starched white shirts and long black skirts. Walker encouraged her ladies to be inventors and live independently.

The system found its way to Europe. Black artists in Paris successfully used her products. Lelia was placed in charge of the mail order side of her mother's business and began to call herself A'Lelia. Both women became patrons of the arts each giving liberally to various pet charities such as the N.A.A.C.P. (National Association for the Advancement Colored People), the Tuskegee Institute, Harlem Renaissance and charities that supported black orphans. Success was now a part of C.J. Walker's life.

Vertner Tandy, an African American architect was hired to build her mansion, Villa Lewaro at Irvington on the Hudson, New York.

On May 25, 1919, Madame C.J. Walker suddenly died of a kidney disease. She died as the first female millionaire. The business was left to her daughter with a proviso that only a female would run her company.



"I am a woman who came from the cotton fields of the South. From there I was promoted to the washtub. From there I was promoted to the cook kitchen. And from there I promoted myself into the business of manufacturing hair goods and preparations....I have built my own factory on my own ground"

Madam Walker, National Negro Business League Convention, July 1912



Marjorie Joyner

An employee of Madame Walker, Marjorie Stewart Joyner, was the owner of two patents. These designs were created as a result of Madame's products.

Who was this lady? She was granddaughter of a slave born in 1896 in the Mississippi area. At the age of twenty, she moved to Chicago. She married and her mother in law encouraged her to go to the Walker school.

Joyner's education at the Walker school stimulated her creativity. Twelve years after attending, on November 12, 1928 she received an official patent for her permanent wave machine. It was designed to improve the Walker System. The device allowed women to keep their hairdos for a longer time.

In 1929, she improved her wave machine to take care of customer complaints stating that it was uncomfortable. The second patent was given to the Walker Company.

During the Depression, she taught grooming to both men and women. She encouraged people to take time to look good. It would help them to get jobs. She taught deportment and taking charge of their lives by creating their own businesses.

At a later date, Marjorie Joyner returned to school and earned a Ph.D. in humanities. Dr. Joyner died at the age of ninety-eight in 1994.



Lydia Flood Jackson

Born in 1862, Lydia Flood Jackson was part of a socially conscious family. Her mother Elizabeth Thorn Scott opened the first school for black children in Sacramento, California. Lydia grew up inspired by her mother's points of view on inequality, and black women's rights in California.

Jackson's adult life was spent running her cosmetic business as the 'Madame C.J. Walker of the West'. She produced her own line of cosmetics and successfully sold her products to black customers in the west.

Her time was also spent giving lectures on social issues. She was a great orator. She often spoke out on civil rights for women, blacks and other minorities. Her views were heard in other countries. Lydia Jackson was asked to give lectures in Mexico, the West Indies, and South America.

In 1918, she spoke before the State Federation of Colored Women's Clubs. She encouraged all women of color to speak out and support civil rights and suffrage. They should follow the ideals of Susan B. Anthony and other women. Quotes were made of the Bill of Rights and the Fourteenth and Fifteenth Amendments of the United States Constitution.

Lydia Flood Jackson is remembered primarily as a black freedom fighter who inspired others to speak out against discrimination.



Choose Their Mottoes

Direction: Think about the lives of the American Innovators in this unit. What motto would you choose for them? Write the name of the innovator and their motto below. This is an example: **Keep trying; you'll learn something.**

Name	Motto

Bonus: Write your own motto. It should reflect something about what you think and/or how you live.



Charles Kinney

The ravages of the Civil War were manifested in the burned out properties, barren fields, and the walking caravans of freed slaves traveling north and west to secure better lives for themselves. Among the scores of freed slaves was a young boy age ten or eleven. His name was Charles Kinney; also known as Charlie. He was born in 1855 as a slave on a plantation in Richmond, Virginia.

At the time of Emancipation, he traveled alone. He dreamed of belonging, of success, of having his own home. God had a plan for him. Charlie ended up in Reno, Nevada and took odd jobs on ranches and shipping to support himself.

One evening, while walking home, Charles was attracted to a tent meeting. J.N. Loughborough was preaching at the time. Charles was impressed with the message he heard, and began to regularly attend the meetings. A few nights later, he heard Ellen White preach on the book of John. He felt he belonged when the message was shared that God loved him and he was His son. On the last Sabbath in September of 1878 Charles Kinney was baptized as the first black member of the Reno Seventh-day Adventist Church.



Working as a colporteur proved that he was dedicated to the message and earnest about his mission. Then, he was elected as secretary of the Nevada Tract Society. While working in that position, he was able to place a complete collection of Adventist books and magazines in the Reno Public Library and the Reno Temperance Reform Club.

His dedication and enthusiastic diligence made it possible for his church to send him to the newly opened Healdsburg SDA College in California. Kinney spent two years at the college and once more heard Ellen White preach. At the conclusion of his studies, he began his vocation as a Seventh-day Adventist worker.

The conference leaders sent Charles to work among the Black people in Topeka, Kansas. The Topeka black community were not at first receptive to anyone telling them how to live differently. They still remembered their former bondage and had settled far away from the reminders of slavery. Charles Kinney was undaunted. He made 650 visits and distributed 16,500 tracts. This resulted in 5 women and two heads of households who pledged their determination to keep the Sabbath. Following that period of time, Kinney canvassed from door to door visiting and preaching while working his way eastward through Kansas and Missouri. The Review and Herald followed his work and even reported his activities in their publication. It was determined that he had a special talent of reaching



people that most others were unable to do. He was given more responsibilities and given challenging areas in the South and Midwest. Companies and churches were raised as a result of his ministry. From the 1880s to 1890s, Kinney worked in New Orleans. There, the fourth Black church was founded. He also got married in Nashville, Tennessee. However, this did not stop him from doing the Lord's work.

In the summer of 1889, Charles Kinney made history in the Seventh-day Adventist Church. He was the first ordained black minister. The ordination took place at the Southern District camp meeting. He had a home. He belonged. He was acknowledged.

Life was very full for this pioneer minister. He continued his evangelistic efforts and worked very hard to share the gospel with people around him. Due to his wife's failing health in 1911, he had to reduce his workload.

Another problem Kinney had was the prejudice he encountered communicating with some white members. In St. Louis, he had worked with both blacks and whites. In fact, they both worshipped together. Other church members criticized the congregation. The problem came to the attention of Ellen White who issued a special rebuke to the critics of biracial worship. It reminded some people of Kinney's ordination when other church members tried to stop him and his black members from joining the service.

In order to solve this embarrassing problem, Kinney suggested that Black conferences needed to be organized. This was done.

Charles Kinney lived until he was 96 years old and died in 1951. A few years before he died, he was seen worshipping quietly in the Oakwood College Church. He lived to see the nationwide black congregation grow from 50 to 50,000 members.



Anna Knight

The baby daughter of a former slave was born in the year, 1874 in Jasper County, Mississippi. Anna Knight was part of a large family who were originally from Macon, Georgia. Anna's family name came from their slave owner. When slavery ended, the Knight family moved to Jones County with a younger sibling of their former master. He was a progressive thinker; he did not believe in slavery. The Knights worked with him as sharecroppers until they were able to purchase their own land, build a home, and successfully farm.

Working on a new farm required back breaking, long, exhausting workdays, and often, time was not devoted to the education of the children because they were expected to contribute on the farm as a family team member. Anna found time to play with the white children and encouraged them to teach her how to read and write. She recalled that her first two books were *Webster's Blueback Speller* and *McGuffey's Reader Book Four*. She taught herself to write by copying words in the sand. She did not keep her newly acquired knowledge to herself; Anna taught the younger children in her area what she had learned.

One day as she was reading the newspaper, a column entitled, "The Cousins' Exchange" caught her attention. The column was inviting its readers to send good quality reading material to each other. Two Seventh-day Adventist pen pals began corresponding with her. They also sent copies of Signs of the Times and other church literature. A Miss Embree continued to correspond. Finally, she sent Anna a copy of Steps to Christ. The book impressed Anna and she decided to be baptized. She sold one half of a bale of cotton to pay for her trip to get to the church where her baptism took place on December 18, 1891.

Anna's love for learning and the Lord inspired her to harvest 200 lbs of cotton to pay for a Bible that her uncle Abner was not using. This astonished her family. Anna Knight knew what she wanted and considered that the Lord had provided her with what she needed for her survival. The Knight family did not take very kindly to Anna's conversion to another religion, especially one that professed to worship on Saturday.

This young girl had dreams. She wanted to get an education. The SDA School in Graysville, Tennessee accepted her application and she enrolled as a student. Shortly, after she arrived, her heritage proved a stumbling block. The principal wanted to know whether she was mulatto because he wanted to find a way to justify her acceptance as a student in the school. She was not allowed to attend the school, only the church. The matron of the girls' dormitory taught her privately. Now she was able to complete her elementary training.



Anna wanted to be a teacher, but her family resented the fact that she was not 'pulling her weight' as a contributor to the family enterprise. A couple called the Chambers decided to fund Anna's attendance at Mount Vernon Academy in Ohio. She lived and worked with them during her time at the school. While she was at the Academy, Mr. Chambers took sick. The Chambers were unable to help Anna to finish her course of study. So she changed to nursing, worked, and completed her certificate.

Next, Anna attended Battle Creek College where she intended to prepare herself to become a missionary nurse. After her graduation, Anna returned home to open a school for her people. There were many obstacles. Eventually a log cabin was found and crudely adapted into a school. Anna taught regular classes in the day, Sunday school on the weekends, and adult evening classes during the week. She also found time to practice her nursing skills where needed. Many of the white folks in the area wanted to close her school down. She was even ambushed one night after returning from a health class.

In 1901, at a General Conference Session, Anna volunteered for service in India. She returned home to her school. In 1908, Dr. Kellogg requested that she visit him. He asked her if she was still willing to work in India. She replied that she would go if, a couple could be found to carry on the work in her school. A couple was found and Anna made preparations to take a long voyage not expecting to return home for many years.



It took thirty days for Anna and a group of five other missionaries to travel on ship to India. She landed in Bombay and then was sent to work in Calcutta. She nursed, taught Bible and English classes. Part of the time she worked as a literature evangelist serving the wealthy English and Indians in hills of Simla. She was a very hard worker. However, sometimes she suffered heat stroke due to a lack of rest. Anna Knight became the first black overseas missionary.

A two-year furlough was given to Anna after serving five years in India. She returned home because there were problems. The couple supervising the school was mobbed and the building destroyed. The need was great to establish work in that area. Knight accepted a call to Atlanta, Georgia to work with her people.

Anna was asked to start the first sanitarium as the medical matron. There was much opposition to her leadership so she started treatment in her own home. In addition, she was asked to become the Bible instructor in the area. A two- teacher school was already established nearby, so she asked permission to teach night classes there. The school was soon overcrowded.

Due to the fact that she was the first black missionary, Anna Knight was asked to lecture on India at Atlanta University, Spelman, Morris Brown, and Clark Colleges. She met many prominent people and this contact proved helpful in the Seventh-day Adventists' relationship with the community. As a result, she established the first YWCA in Atlanta.



It was at a Southeastern Conference meeting that Anna was given another assignment. She was asked to take the home missionary secretary and the home volunteer secretary's positions among the blacks. Her ministry had grown so much that the position of education secretary was added to her other responsibilities. After six years, Southern Union placed a request of the General Conference that Anna Knight transfer to their conference to do the same type of work. The request was granted and Anna worked to standardize the courses of study, the textbooks, in addition to improving the quality of the schools' physical conditions. Six years later, Anna Knight returned to Southeastern conference as a field secretary. She held that position until December of 1945 when Black conferences were organized.



The year 1922 was the beginning of twenty-seven years' tenure as the first president of the first National Colored Teachers Association (NCTA).

Anna Knight lived to the advanced age of 98. She passed away in 1972 at the Riverside Sanitarium, and is buried in the Knight family plot near Soso, Mississippi.

Southeastern Conference



Jane Cooke Wright, MD

Physician Dr. Louis Tompkins Wright and schoolteacher, Mrs. Corinne Cooke Wright, were proud parents of Jane Cooke Wright who was born on November 30, 1919. She grew up in a family whose patriarch was the second generation of physicians.

Jane was raised in a climate of inquiry and high achievements. Dr. Louis Wright was the first black on staff at the Harlem Medical School. He was a graduate of the prestigious medical school at Harvard University.

After attending Ethical Culture School and Fieldstone High School in New York City, Jane decided to attend college because she wanted to make a difference. When she graduated in 1938 from high school, Jane went to Smith College in Massachusetts. It was known for the wealthy and gifted students that attended. At first, Jane found it difficult to decide on a major course of study. All subjects excited her; and she excelled at whatever she studied. Towards the end of her sophomore year, she decided that her favorite subject was physics and therefore she would study medicine. In 1942, she graduated with highest honors as a result of passing her comprehensive tests in seven subjects. She was now the first of the third generation of physicians in her family. Her younger sister Barbara became a physician.



Wright was awarded a four-year scholarship to the New York Medical College when problems arose in her family. Her father's lungs had been seriously injured in World War I and he succumbed to tuberculosis. The family experienced financial hardships, yet her mother told her to continue her studies.

After medical school, she completed her internship in internal medicine at Bellevue Hospital and two residencies at Harlem Hospital. During this time, she married a lawyer, David Dallas Jones. They had two daughters, Jane and Alison.

In 1948, one year after his daughter's marriage, Dr. Jane Wright father established The Cancer Research Foundation to study chemotherapy treatments at the Harlem Hospital. At that time cancer research was in its infancy. Chemotherapy treatments were regarded as highly questionable in the medical community. Jane joined her father in his research. She was able to glean the innovations of the time. Finding funding was not going to be easy. Several professional organizations and the federal government helped to support her research.



Dr. Louis Wright died of a heart attack in 1952. Dr. Jane Wright continued her work at New York University as Professor of Research Surgery and Director of Chemotherapy. Her greatest desire was to help cancer patients to live longer and more productive lives.

In 1967, Dr. Wright returned to New York Medical College to take the position, Professor of Surgery and Associate Dean. She was the first African American female to ever hold that position. Her research has determined what treatments and dosages cancer patients are given today. One major finding was that cancer treatments were best given as injections and not taken through the mouth.

She has published 135 scientific papers and contributed to nine books. She was one of the seven founding members of the American Society of Clinical Oncology. Dr. Wright was the first woman elected as dean of a medical college. Her travels have taken her to Eastern Europe, China, the former Soviet Union, and Africa to present the latest findings in research and treatments. She carved her own path.



Dr. Patricia Bath

Patricia Bath was born and raised in Harlem. She showed an aptitude for science and her former high school science teachers encouraged her to apply for a national Science Foundation Scholarship; which she won.

She attended Yeshiva University and Harlem Hospital and gained indepth research experience. Bath realized that she wanted to study medicine. Upon graduating from Hunter College in 1964, Bath enrolled in medical school at Howard University in Washington, D.C. Then she accepted a teaching position at the University of California's School of Medicine.

Her love of research continued and took her to Berlin, Germany to research their laser systems. Bath had become concerned with the effects of cataracts on vision. So she focused her research on finding an efficient, safer method for their removal. Dr. Bath took advantage of current laser technology and invented the Laserphaco Probe in 1986. This device allows the doctor to remove a cataract more safely than by traditional methods. The laser beam provided greater accuracy when aimed at the affected area. It is able to break up the cataract without affecting other parts of the eye.

Bath obtained a US patent in 1988, and secured patents in Canada, Europe and Japan. She was the first African American female doctor to earn a patent for a medical invention.

In 1978, Dr. Bath was a founding member of the American Institute for the Prevention of Blindness (AIPB). This organization has focused on improving ocular treatment and care worldwide.

Dr. Bath still works on the cutting edge. She is currently employed at Howard University as Director of Telemedicine. She is helping to set up a network in the Caribbean and eventually throughout the world. Doctors will be able to use the internet to seek advice from peers and specialists, as well as, transmitting electronic transfers of X-rays and other diagnostic information.



Patricia Bath, M.D. Smithsonian
photo by Jeff Tinsley.



Celebrate With an Innovator

Name: _____ Date: _____

You have been given the pleasant task of planning a celebration day for Anna Knight. Plan a day with your cooperative group. What plans will you make? Select a person in your group to represent the innovator. Then decide on a day you will honor the life of your person. Make sure that your teacher agrees to the date.

Now the fun begins. Decide what you want to do and write your plans below. What will you do to advertise the celebration in your classroom or school?

Innovator's Name: _____

Plans for the day

Group Assignments



Make a Date With An Inventor

Name: _____ Date: _____

Directions:

1. Study the chart below. Then plan a calendar of fun activities for a month. The calendar sheet is provided for you in this section of the unit.
2. Your teacher has assigned you to work in groups. Each person in the group should choose an inventor. Prepare to role-play the person you selected. This performance will take place during, "Visit with Your Inventors Week".
3. Study the chart below then fill in the blanks on the following page.

Invention	Inventor	Date	Place
	George T. Sampson	1892	Dayton, Ohio
Fire escape		1878	Chambersburg, Pennsylvania
Bicycle basket	Jerry Certain		Tampa, Florida
Bridle bit	Lincoln Brown	1892	
Blue street mailbox		1891	Boston, Massachusetts
Elevator stabilizer	Alexander Miles	?	
	Joseph Lee	1894	Auburndale, Massachusetts
Kitchen mop		1893	Detroit, Michigan
Fountain pen with ink reservoir	William Purvis		Philadelphia, Pennsylvania
	John Albert Burr	1899	Agawam, Massachusetts



Name That Person

Directions: Read the facts below. Then write the name of the person each refers to.

1. He was the first ordained black minister. _____
2. He designed the first gas mask. _____
3. She created a permanent wave machine. _____
4. He created 325 uses for the peanut. _____
5. He designed the first automatic engine lubricator. _____
6. She was the first African American millionaire. _____
7. He invented a powerful and clearer transmitter. _____
8. He improved the cotton baling presses. _____
9. She invented the Laserprobe. _____
10. He invented the shoe lasting machine. _____



Lewis Howard Latimer

Poet

Name: KEY

Date: _____

Directions: Read the following poems by Lewis Howard Latimer. On a separate piece of paper, complete the activities on the following page.

The Worker

Up in the morning, early
Before the break of day
To eat if I had food to eat
And to my work away...

And it's day and night and morning
Through each succeeding year.
'Neath the spur of keen necessity
Or the presence of a fear
A fear that haunts me ever
Through each succeeding day
That those who give the means to live
May take the means away.

Ebon Venus

Let others boast of maidens fair,
Of eyes of blue and golden hair;
My heart like needles ever true
Turns to the maid of ebon hue.

I love her form of matchless grace,
The dark brown beauty of her face,
Her lips that speak of love's delight,
Her eyes that gleam as stars at night.

O'er marble Venus let them rage,
Who set the fashions of the age;
Each to his taste, but as for me,
My Venus shall be ebony.



Drink to the Dead

Drink now in silence to the dead;
 Those noble souls who've passed away,
 Whose promise like the withered flower
 Was quenched in premature decay.
 Fill up your glasses to the brim;
 They would not have our joy the less
 Than when they sat among us here,
 In all their youth and joyousness.
 Drink to the souls now passed beyond;
 And be our thoughts from sorrow free;
 Ring out the praise of those great souls.
 In one grand earnest symphony;
 So that in time, when we are gone,
 The Living may our praise proclaim,
 And loving lips drink unto us,
 To keep alive fond memory's flame.

Activities Possible Answers

1. To whom does Leslie Howard Latimer refer in the poem called The Worker? ***The poem may refer to a slave or sharecropper.***
2. Why would the worker not be able to eat breakfast on some mornings?
If he were a slave, the master supplied his food and would not give. If he were a sharecropper; he would not be able to purchase food at times.
3. The words used in Latimer's poem give you a sense of the hard life of The Worker. List the problems The Worker faces in the poem. ***"working day , night, morning... 'neath the spur of keen necessity"***
4. In Ebon Venus, the poet describes why he prefers black women. List the words that convey his feelings. ***graceful, beautiful countenance, shiny, sparkling eyes***
5. The poem Drink to the Dead conveys a salute to a loved or admired person who died. How would you remember someone who passed away? ***Answers will vary.***
6. Jesus died and has risen. How do you salute Him in your daily life? Write a salute to Jesus. ***Answers will vary.***
7. Create your own poem conveying one of the themes in the poems above. ***Answers will vary***



Make a Date With an Inventor

Name: _____ KEY _____ Date: _____

Directions:

1. Study the chart below. Then plan a calendar of fun activities for a month. The calendar sheet is provided for you in this section of the unit.
2. Your teacher has assigned you to work in groups. Each person in the group should choose an inventor. Prepare to role-play the person you selected. This performance will take place during, "Visit with Your Inventors Week".
3. Study the chart below then fill in the blanks on the following page.

Invention	Inventor	Date	Place
<i>Clothes Dryer</i>	George T. Sampson	1892	Dayton, Ohio
Fire escape	<i>Joseph Winters</i>	1878	Chambersburg, Pennsylvania
Bicycle basket	Jerry Certain	1899	Tampa, Florida
Bridle bit	Lincoln Brown	1892	<i>Xenia, Ohio</i>
Blue street mailbox	<i>Philip Downing</i>	1891	Boston, Massachusetts
Elevator stabilizer	Alexander Miles	?	<i>Duluth, Minnesota</i>
<i>Baker's kneading machine</i>	Joseph Lee	1894	Auburndale, Massachusetts
Kitchen mop	<i>Thomas Stewart</i>	1893	Detroit, Michigan
Fountain pen with ink reservoir	William Purvis	1893	Philadelphia, Pennsylvania
<i>Device that unclogs lawn mower</i>	John Albert Burr	1899	Agawam, Massachusetts



Name That Person

Name: KEY Date: _____

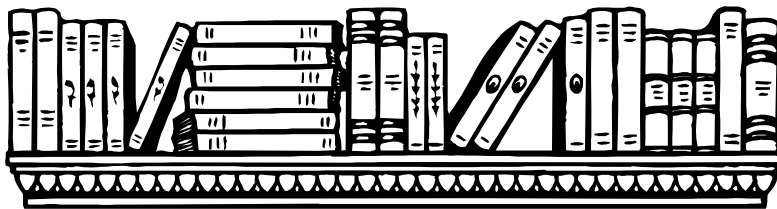
Directions: Read the facts below. Then write the name of the person each refers to.

1. He was the first ordained black minister. Charles Kinney
2. He designed the first gas mask. Garrett Morgan
3. She created a permanent wave machine. Marjorie Joyner
4. He created 325 uses for the peanut. George Washington Carver
5. He designed the first automatic engine lubricator. Elijah McCoy
6. She was the first African American millionaire. Madame C.J. Walker
7. He invented a powerful and clearer transmitter. Granville T. Woods
8. He improved the cotton baling presses. Benjamin Montgomery
9. She invented the Laserprobe. Dr. Patricia Bath
10. He invented the shoe lasting machine. Jan Matzeliger



Bibliography

1. Haber, Louis. *Black Pioneers of Science and Invention*. San Diego: Harcourt Brace Jovanovich, Inc., 1970.
2. Lee, Gerald L. *Interesting People Black American History Makers*. New York: Ballantine Books, 1992.
3. Metcalf, Doris Hunter. *African Americans Their Impact on US Society*. Torrance, CA: Good Apple, 1992.
4. Metcalf, Doris Hunter. *Portraits in Black*. Torrance , CA: Good Apple, 1990.
5. *Seventh-day Adventist African-American Heritage*. Decatur, GA: Office of Education Southern Union Conference, 1989.
6. Sullivan, Otha Richard. *African American Inventors*. New York: John Wiley & Sons, Inc.
7. Tillery, Carolyn Quick. *The African American Heritage Cookbook*. New York: Carol Publishing Group, 1996.



Faces of Science - Internet Links

1. Faces of Science: African American
Profiles of African Americans who have contributed to the advancement of science and engineering. www.princeton.edu
2. African-American Inventors Series: Women Inventors
PEOPLE WITH NO PAST HAVE NO FUTURE presents African-American Women Inventors A new site that is dedicated to the memory of the many African-American inventors that helped to develop this land of Diaspora that we have built. edcen.ehhs.cmich.edu
3. African-American Inventors
Modern African-American Inventors. We searched the country to find those special African-Americans whose creativity and ingenuity have, in one way or another, shaped our lives. www.emeagwali.com
4. Partial List of African-American Inventors
Check a text list containing the names of black inventors, the product(s) they created and their patent date. www.ai.mit.edu
5. Inventors Museum - African American Inventors
Provides biographies and photos of African American inventors and pictures of their creations. www.inventorsmuseum.com
6. Black Inventors & Engineers
GREAT AFRICAN AMERICAN INVENTORS AND ENGINEERS. The following is table of contents in tribute of just some of the great African Americans who have made contributions to society. www.uwm.edu
7. The Lemelson-MIT Prize Program: African-American Inventors of the Late 19th Century.
African-American Inventors of the Late 19th Century Practical inventions for everyday use Benjamin Banneker's dream of racial equality in the U.S. did not become reality with the Emancipation Proclamation (1863) or the Thirteenth Amendment (1865). web.mit.edu



8. African American Scientists & Inventors
Find out about African American inventors and scientists. Learn about George Washington Carver, Benjamin Banneker, Marjorie Stewart Joyner, and many other notable inventors and scientists.

<http://afroamhistory.about.com/cs/blacksinscience/index.htm?iam=dpile&terms=%2BAfrican+%2BAmerican+%2BIinventors>



9. African American Inventors - Black History Month
Complete research material for black history month - each black inventor listed has a date, patent number and a description of the invention - a database of African American inventors.

<http://inventors.about.com/library/weekly/aa020600a.htm?iam=dpile&terms=%2BAfrican+%2BAmerican+%2BIinventors>

10. African American Inventors and Inventions
Black History Month - Dates, patent numbers and a description of the different inventions with pages of complete research material for each African American inventor.

<http://inventors.about.com/library/weekly/aa020600h.htm?iam=dpile&terms=%2BAfrican+%2BAmerican+%2BIinventors>

11. African American Scientists and Inventors
Let's pay tribute to some amazing African-American scientists and inventors!

<http://kidscience.about.com/library/weekly/aa012901a.htm?iam=dpile&terms=%2BAfrican+%2BAmerican+%2BIinventors>

12. African American Scientists & Inventors - page 2 of 2
Find out about African American inventors and scientists. Learn about George Washington Carver, Benjamin Banneker, Marjorie Stewart Joyner, and many other notable inventors and scientists.

http://afroamhistory.about.com/cs/blacksinscience/index_2.htm?iam=dpile&terms=%2BAfrican+%2BAmerican+%2BIinventors



13. The Lightbulb - African American Inventors
The Light bulb, Inventors.about.com's Newsletter February 15, 2001
<http://inventors.about.com/library/newsletter/bl021501.htm?iam=dpile&terms=%2BAfrican+%2BAmerican+%2BInventors>
14. Learn about African American Inventors for Black History Month
Database of African American inventors with dates patent numbers and descriptions of the invention for each black inventor.
<http://inventors.about.com/library/weekly/aa020600e.htm?iam=dpile&terms=%2BAfrican+%2BAmerican+%2BInventors>
15. African American Invent Black History Month
Pages of complete research material for each black inventor - a table of African American inventors.
<http://inventors.about.com/library/weekly/aa020600f.htm?iam=dpile&terms=%2BAfrican+%2BAmerican+%2BInventors>
16. African American Science
African Americans have contributed much to science. Learn about the achievements of these scientists and inventors.
<http://kidscience.about.com/library/weekly/aa013100a.htm?iam=dpile&terms=%2BAfrican+%2BAmerican+%2BInventors>
17. African Americans in Science
Blacks in Science, by your About.com Guide to African American Culture.
<http://afroamculture.about.com/cs/blacksinscience/index.htm?iam=dpile&terms=%2BAfrican+%2BAmerican+%2BInventors>

