

Best Practices of Technology Integration

Title: *African American Inventors Who Have Changed Your Life*

Subjects: English Language Arts, Social Studies

Intended Grade Levels: 7-12

Description:

The student design team must create marketing materials to inform the community about an inventor and his/her invention. They write using a variety of formats, such as newspaper article, advertisement, and press release. They collect, analyze order, and evaluate data and synthesize the resulting information into a presentation.

Narrative:

We take our everyday life for granted. Which African American invented a cellular phone, a lawn sprinkler, a golf tee, a fountain pen, a pencil sharpener, a programmable remote control? We often think of politicians and athletes and musicians but our life is highly influenced by inventors and engineers. This lesson explores how we are touched by the creativity and resourcefulness of ordinary people who make things work.

Curriculum Benchmarks:

[MI.ELA.8.HS.4](#)

Identify and use aspects of the craft of the speaker, writer, and illustrator to formulate and express their ideas artistically.

[MI.SOC.V.2.HS.1](#)

Conduct an investigation prompted by a social science question and compare alternative interpretations of their findings.

[MI.SOC.V.2.HS.2](#)

Report the results of their investigation including procedures followed and a rationale for their conclusions.

Detailed Timeline:

This lesson will take approximately one week. These days need not be consecutive. The project may take place over the course of a month, but five or six class days should be planned.

Day 1: Present the concept. Brainstorm items used everyday. What is an invention? How would our world be different without the products and inventions we use? What skill would a person need to have to become an inventor? Ask if anyone knows an inventor. What products would they like to see invented? Describe the assignment and what they will be able to do upon its completion. Students list questions that they will research. Review ethical use, print and non-print search strategies, note-taking skills.

By completing this lesson, the students will:
Write a clear and grammatically correct compositions,
Explore and use characteristics of different types of texts,
Use aesthetic elements, and mechanics to construct and convey meaning,
Apply ideas and issues to their own lives and the lives of others,
Engage in reading in biography, read and comprehend general and technical information,
Compose using a variety of writing styles and formats and develop effective research skills.

Day 2:

Begin finding sources for specific inventors and inventions. Confirm the person or invention that will be researched by each student team. Students skim websites and print sources and develop a preliminary list of questions and a bibliography. Compile facts about the person and the invention. Find pictures or drawings of the invention.

Day 3:

Begin to outline the content of the presentation of data. Define the audience for which the presentation will be designed. Determine the format of the presentation. Come to a team consensus on delegation of tasks. Begin the first draft

Day 4:

Edit and revise the draft. Do you need more information? Is something missing? Does your presentation hang together? Check the rubric. Has your team met the requirements of the assignment?

Day 5:

Present your team results to the class. Use the rubric to assess each teams presentation. Use the team rubric to assess the process your team used to achieve your results.

Materials/Hardware/Software:

Handout 1—Checklist of details for this assignment

Handout 2—Rubric for product

Handout 3—Rubric for process

At least one computer connected to the Internet

Optional: digital camera, scanner, LCD display or projection device

Word Processing software, Internet browser

Black Inventor Biographies

Links to Writing Aids

[Glossary](#) is a list of Internet terms from the Internet Literacy Consultants.

[Business Letter Writing](#) is a unit from the Mississippi State University Agriculture Department that includes both html and PDF examples of letters.

Teacher Preparation:

Preview sites to ensure that links connect. Run a new search to find additional sites. New sites are added every day; it helps if you evaluate the site, unless you have already taught evaluation of Internet sites. Duplicate handouts for students. Modify rubrics for intended grade level.

Prerequisite Student Skills:

Computer basics—point and click, open and close documents, block and copy.

Activities/Procedures:

You are the marketing director for a new company that designs promotional materials for inventions of African American inventors. Your staff wants to know "Who are the major African American inventors of the twentieth century?" You decide to direct them to information on African American inventors of the twentieth century. Choose an inventor. Browse through resources about inventors and their inventions. When you have an idea about who you would like to know more about, research your inventor to find out details of his/her life:

- Where and how he/she grew up and obstacles he/she had to overcome
- His/her personal relationships
- His/her inventions
- How his/her invention has made a difference in our world
- Why this invention is important
- Any other area of his/her life that interests you

Develop an FAQ list about your inventor. What are things that someone might like to know about this inventor? What pieces of trivia would people enjoy knowing about the inventor? Remember, your FAQ list should include answers to what you believe may be the most common questions, curiosities, and confusions about your inventor.

Create a full-page advertisement for the invention. Include:

- A catchy slogan
- Sales data about the invention
- A few interesting facts about the inventor
- At least one graphic

Write a press release for the invention. Post your advertisement. Write the first issue of the monthly newsletter. One article should be a factual summary about the invention. Another article should be an essay on your opinion about how the invention has affected American life. Does your invention lend itself to a drawing or cartoon? Write a poem about the inventor's life and work. Publish your newsletter to other teams.

Assessment/Evaluation:

The team presentation of advertisement, press release, cartoon or drawing, poem, factual article or opinion piece will be the final product. [A sample rubric is attached. The advantage of allowing a variety of genres within a team is that you can direct students to presentations appropriate to individual skill building for each student. One student may be working on mechanics (grammar, spelling, punctuation, and vocabulary), another may be working on the five-paragraph essay, a third on imagery within a poem.]

Follow-up Activities:

- View the ads of other inventors and choose one to respond to with a standard business letter stating why you would want to buy or use the invention.
- Create Web pages about your inventor or the invention, with links to your FAQ and newsletter.

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Student Worksheets:
Handout 1—Checklist of details for this assignment

TEAM			Sign Below	
	What [cite sources]	When	Who	Date Completed
	Decide on Inventor/Invention			
	Collect facts about inventor			
	Collect facts about invention			
	Find picture of inventor			
	Find picture or drawing of invention			
	Develop an FAQ			
	Invent your slogan			
	Write your press release			
	Write your factual article			
	Write your opinion piece			
	Design your advertisement			
	Compose your poem			
	Draw your cartoon			
	Organize your presentation			
	Present your results			

Handout 2—Rubric for product
http://www.phschool.com/profdev/aa/index_aa08.html

Handout 3—Rubric for process
http://www.phschool.com/profdev/aa/index_aa08.html

Project Rubric						
Assignment: Communicate complete information on an African American Inventor						
	Beginner: 1 point	Novice: 2 Points	Intermediate: 3 points	Expert: 4 points	Self Evaluation	Teacher Evaluation
Topic/Content	Includes little essential information and one or two facts	Includes some essential information with few citations and few facts.	Includes essential information with most sources properly cited. Includes enough elaboration to give readers an understanding of the topic.	Covers topic completely and in depth. Includes properly cited sources and complete information. Encourages readers to know more.		
Technical Requirements	Includes few pictures, products incomplete, few outside sources, no interpretation of importance	Includes fewer than 3 genres, fewer than 3 pictures or drawings, minimal interpretation of importance	Includes at least 3 genres, at least 3 pictures or drawings, some interpretation of importance.	Includes at least 5 genres, more than 5 pictures and drawings, with citations and interpretation.		
Mechanics	Includes more than 5 grammatical errors, misspellings, punctuation errors, etc.	Includes 3-4 grammatical errors, misspellings, punctuation errors, etc.	Includes 2-3 grammatical errors, misspellings, punctuation errors, etc.	Grammar, spelling, punctuation, capitalization are correct. No errors in the text.		
Cooperative Group Work	Cannot work with others in most situations. Cannot share decisions or responsibilities.	Works with others, but has difficulty sharing decisions and responsibilities.	Works well with others. Takes part in most decisions and contributes fair share to group.	Works well with others. Assumes a clear role and related responsibilities. Motivates others to do their best.		
Oral Presentation Skills	Great difficulty communicating ideas. Poor voice projection. Little preparation or incomplete work.	Some difficulty communicating ideas, due to voice projection, lack of preparation, or incomplete work	Communicates ideas with proper voice projection. Adequate preparation and delivery.	Communicates ideas with enthusiasm, proper voice projection, appropriate language, and clear delivery.		
Scale: 18 - 20=Expert 15 - 17=Intermediate 10 - 14=Novice 6 - 9=Beginner				Total Points		