

FAMOUS SCIENTIST RESEARCH PROJECT

Name of Scientist: _____

Unit in which this is due: _____



Background: Recently, you noticed that a museum exhibit about scientific history is biased toward old white dudes and is not very diverse. This bothers you and you have decided to do something about it.

YOUR TASK: You have been hired by the Renfroe Museum to research a famous scientist and create an artifact/display to be featured in next year's History of Science Exhibit that will be open to the public. The exhibit will highlight diversity and each scientist's contribution to the understanding of our world. You may choose the product (a book, a poster, a 3D model, a timeline, or news article).

This is an **independent** project where students will research a particular scientist (living or not-living) that made a contribution to the understanding of topics we are learning in science class this year. Whether the scientist invented something, made something better, contributed enormous ideas, or discovered something, we want to know about it! Your goal with the project is to communicate to museum visitors about each scientist, their big ideas, how each connects to our lives today, their experience with racism and/or white privilege, while making a creative museum artifact in the process.

Directions: Individually research the scientist you were assigned. Take notes on the following [link](#) and be sure to record your sources. Turn in your notes when finished for teacher approval. Once approved, begin working on your final artifact (see below). When the class begins the unit connected to your scientist, your teacher will assign you a due date for the project. You will present your work to the class on that presentation date. You will also present to our Decatur community during a Renfroe Science Night in the spring.



Artifact Choice				
(Choose one artifact to create after your notes have been approved by your teacher)				
A	B	C	D	E
Write a front-page news story/article about your scientist including all of the components found in checklist and rubric below.	Create a children's book (printed or digital) including all of the components found in the checklist and rubric below.	Create a full color poster of your famous scientist including all of the components found in the checklist and rubric below.	Create a 3-D model that represents your scientist or his/her ideas. Include an information plaque (similar to a museum plaque) with all the components found in the checklist & rubric below	Create a timeline that shows your scientists accomplishments and their impact through to today. Include all of the components found in the checklist and rubric below.



What facts should be included in the project? Remember the more description and detailed the information included, the more complete & successful at communicating your artifact will be.

Basic Requirements include:

- The first, middle and last name of your scientist.
- A mug shot (picture of your scientist).
- Years living (examples: 1901-1959; 1973 - ?)
- Their field of study (for example: physics, geology, biology, astronomy, marine biology, archaeology)
- The country they were born in.
- Where they did/do their work.
- A description, in your own words, of what your scientist is most famous for.** (Be sure to include scientific vocabulary and how it connects to the unit in which we study the scientist)
- A paragraph, in your own words, explaining how their work benefited the world and us.** (Be sure to include thoughtful reflection about how it connects to you and your life.)
- Two or more interesting facts about your scientist.
- A quote by your scientist
- A place named after your scientist (may not apply)
- How racism affected/affects your scientist

At the beginning of the year you were assigned a scientist (highlight it below)

Mary Anning

Rachel Carson

Sylvia Earle

Ernest Everett

Samuel Nabrit

robert K. Trench

Mack Gibson

Zelma Maine Jackson

Bernard Hubbard

Estella Atekwana

Evan Ford

John Wesley Gilbert

Ayanna Howard

Marilynn Brown

Neil deGrasse Tyson

Edwin Hubble

George Washington Carer

Lisa Meitner

Stephen Hawking

Mae Jemmison

Hayat Sindi

Gladys West

Cynthia Breazeal

Jose Hernandez

Kalpana Chawla

Subrahmanyam Chandrasekhar

Caroline Herschel

Celilia Payne-Gaposchkin

Inge Lehann

Alfred Wegner

Johannas Kepler

Mary Somerville



Display of information (for museum exhibit)

1. Your project must be informative (Identifying **BIG IDEAS** in science)

In order to meet this requirement you must complete all of the research on your assigned scientist. You should think carefully about how they benefited the world and present this to your readers so that they believe that your scientist is truly a FAMOUS scientist.

2. Your project must **CONNECT** scientific discovery to the real world and your place in it

To meet this requirement you should think about the scientific discoveries by your scientist and reflect on why YOU think the discoveries are important—this is an opinion not a statement copied from the internet. Use scientific vocabulary from the unit to elaborate and explain how/why the scientist’s discoveries are important today, to our world, and to our place in it.

3. Your work must successfully **COMMUNICATE** what you have learned.

By communicating, I mean your project should be neat, easy to read, not have mistakes that make it impossible to understand. When looking at your project the class should say, “I learned something” and “you really took the time to make your project”.

4. Your project must be **CREATIVE**, just like science.

Think of ways to make your project stand out from the crowd. You should use color, consider a new perspective or a new way to teach others about your scientist. Don’t take the easy path/project, make a new one.

Grade Rubric				
Criteria	7-8 (Went above & beyond)	5-6 (Met requirements)	4-3 (Could be improved)	1-2 (Did not show mastery)
Identify facts & big ideas in science (Rubric A)	Include a detailed description of the scientist (name, years, place of birth, field of study), an explanation what they are famous for and how it connects to the unit , and multiple (+2) interesting facts	Include basic list of all facts (name, years, place of birth, the field of study, 2 facts), what they are famous for, and how it connects to unit.	Include a most of the facts of the scientist and what they are famous for (name, years, place of birth, the field of study, and 2 interesting facts)	Include a very few of the facts on the scientist and what they are famous for (name, years, place of birth, the field of study, 2 interesting facts) and does not connect to the unit.
Reflect and Connect scientific discoveries to us & world (Rubric D)	Uses scientific vocabulary to elaborate and explain how/why the scientist’s discoveries are important today to our world and to our place in it AND discusses how racism affect(ed) your scientist	List the importance of the scientist’s discoveries to our world and includes most scientific vocab AND how racism affect(ed) your scientist	The importance, connection of the discoveries, and/or racism is mentioned but is not clear & few scientific vocab words used	The importance and/or connection of the scientist’s discoveries to today’s world is not included AND discussion of racism is not included.
Clearly Communicate scientific ideas (Rubric D)	- All sources are documented. -Artifact is neat, easy to read, no obvious mistakes. When looking at artifact peer say, “I learned something” & “you took time on your project”.	- Documents most sources , and -Artifact is mostly neat, easy to read, with few obvious mistakes.	- Documents some sources , and -Artifact is somewhat confusing or hard to read due to a lot of mistakes or messiness	- Documents few to no sources , or -Mistakes and/or writing make it hard to understand, or little info is communicated
Demonstrate Creativity in science (Effort Rubric)	Notes complete. Color, style, images are used thoughtfully throughout. Artifact is unique and does not follow an example.	Notes complete and Artifact includes some color & images. Only minimally follows an example	Notes mostly complete and artifact follows an example and has few images and color	Notes not complete and/or Artifact is a template or very basic in creativity
Final Grade Rubric A: _____/8		Final Grade Rubric D: _____/8		Effort: _____/4

