Student Resource 2.4

Poster Assignment: Role of the Scientific Method in Medical Progress

Directions: Follow the instructions below to research an important figure in the history of medicine during the 16th to 21st centuries, and then design a poster about that person. Assign different parts of the research and poster construction to different group members so that everyone makes a significant contribution to the poster. For example, you might have one group member research the person’s achievements, another group member work out why the historical figure’s work was important to medicine, and the third member work on finding a good image that you can use on your poster. Make sure you read and understand the assessment criteria at the end of this resource before you begin work.

1. Pick a historical figure from the following list, and use the websites listed to research the person you choose.
   * Rene Laennec (stethoscope)

[www.britannica.com/EBchecked/topic/327655/Rene-Theophile-Hyacinthe-Laennec](http://www.britannica.com/EBchecked/topic/327655/Rene-Theophile-Hyacinthe-Laennec)

<http://www.nndb.com/people/670/000205055/>

* + Ambroise Pare (surgery)

[www.discoveriesinmedicine.com/General-Information-and-Biographies/Par-Ambroise.html](http://www.discoveriesinmedicine.com/General-Information-and-Biographies/Par-Ambroise.html)

[www.britannica.com/EBchecked/topic/443426/Ambroise-Pare](http://www.britannica.com/EBchecked/topic/443426/Ambroise-Pare)

* + Anton van Leeuwenhoek (first to observe bacteria and protozoa)

[www.britannica.com/EBchecked/topic/334699/Antonie-van-Leeuwenhoek](http://www.britannica.com/EBchecked/topic/334699/Antonie-van-Leeuwenhoek)

[www.ucmp.berkeley.edu/history/leeuwenhoek.html](http://www.ucmp.berkeley.edu/history/leeuwenhoek.html)

* + Earle Dickson (Band-Aid)

<http://web.mit.edu/invent/iow/dickson.html>

<http://inventors.about.com/od/bstartinventions/a/bandaid.htm>

* + Gabriel Fahrenheit (thermometer)

[www.notablebiographies.com/Du-Fi/Fahrenheit-Gabriel.html](http://www.notablebiographies.com/Du-Fi/Fahrenheit-Gabriel.html)

<http://inventors.about.com/od/tstartinventions/a/History-Of-The-Thermometer.htm>

* + Benjamin Franklin (bifocal glasses)

<http://inventors.about.com/od/fstartinventors/ss/Franklin_invent_4.htm>

[www.britannica.com/EBchecked/topic/217331/Benjamin-Franklin](http://www.britannica.com/EBchecked/topic/217331/Benjamin-Franklin)

* + James Lind (preventing scurvy)

[www.britannica.com/EBchecked/topic/341803/James-Lind](http://www.britannica.com/EBchecked/topic/341803/James-Lind)

[www.bbc.co.uk/history/historic\_figures/lind\_james.shtml](http://www.bbc.co.uk/history/historic_figures/lind_james.shtml)

* + Florence Nightingale (sanitary nursing units)

[www.notablebiographies.com/Mo-Ni/Nightingale-Florence.html](http://www.notablebiographies.com/Mo-Ni/Nightingale-Florence.html)

[www.britannica.com/EBchecked/topic/415020/Florence-Nightingale](http://www.britannica.com/EBchecked/topic/415020/Florence-Nightingale)

* + Joseph Lister (disinfectants and antiseptics during surgery)

[www.britannica.com/EBchecked/topic/343342/Joseph-Lister-Baron-Lister](http://www.britannica.com/EBchecked/topic/343342/Joseph-Lister-Baron-Lister)

[www.notablebiographies.com/Ki-Lo/Lister-Joseph.html](http://www.notablebiographies.com/Ki-Lo/Lister-Joseph.html)

* + Louis Pasteur (germs, pasteurization, rabies vaccine)

[www.notablebiographies.com/Ni-Pe/Pasteur-Louis.html](http://www.notablebiographies.com/Ni-Pe/Pasteur-Louis.html)

[www.bbc.co.uk/history/historic\_figures/pasteur\_louis.shtml](http://www.bbc.co.uk/history/historic_figures/pasteur_louis.shtml)

* + Gregor Mendel (principles of heredity and dominant/recessive patterns)

[www.britannica.com/EBchecked/topic/374739/Gregor-Mendel](http://www.britannica.com/EBchecked/topic/374739/Gregor-Mendel)

[www.csmonitor.com/Innovation/2011/0720/Why-you-should-care-about-Gregor-Mendel](http://www.csmonitor.com/Innovation/2011/0720/Why-you-should-care-about-Gregor-Mendel)

* + Walter Reed (mosquitoes and yellow fever)

[www.biography.com/people/walter-reed-9454083](http://www.biography.com/people/walter-reed-9454083)

[www.britannica.com/EBchecked/topic/494983/Walter-Reed](http://www.britannica.com/EBchecked/topic/494983/Walter-Reed)

* + Elie Metchnikoff (white blood cells protect against disease)

[www.britannica.com/EBchecked/topic/378080/Elie-Metchnikoff](http://www.britannica.com/EBchecked/topic/378080/Elie-Metchnikoff)

<http://en.wikipedia.org/wiki/%C3%89lie_Metchnikoff>

* + Marie Curie (isolated radium)

[www.britannica.com/EBchecked/topic/146871/Marie-Curie](http://www.britannica.com/EBchecked/topic/146871/Marie-Curie)

[www.nobelprize.org/nobel\_prizes/physics/laureates/1903/marie-curie-bio.html](http://www.nobelprize.org/nobel_prizes/physics/laureates/1903/marie-curie-bio.html)

* + Sir Alexander Fleming (discovered penicillin)

[www.nobelprize.org/nobel\_prizes/medicine/laureates/1945/fleming-bio.html](http://www.nobelprize.org/nobel_prizes/medicine/laureates/1945/fleming-bio.html)

[www.britannica.com/EBchecked/topic/209952/Sir-Alexander-Fleming](http://www.britannica.com/EBchecked/topic/209952/Sir-Alexander-Fleming)

* + Jonas Salk (polio vaccine)

[www.britannica.com/EBchecked/topic/519425/Jonas-Edward-Salk](http://www.britannica.com/EBchecked/topic/519425/Jonas-Edward-Salk)

[www.time.com/time/magazine/article/0,9171,990625,00.html](http://www.time.com/time/magazine/article/0,9171,990625,00.html)

1. Use the Internet or other resources your teacher gives you to research your figure. You must include the following information about your figure on your poster:
   * The name of the figure
   * The location where the person was born
   * The dates of the person’s birth and death
   * An image of the person
   * An explanation of why the person’s work is important to medicine
   * A list of the person’s most important achievements
2. Work with your group to brainstorm how the person you are featuring on your poster may have used the scientific method to prove a hypothesis. Use the ideas that you come up with to complete a scientific-method diagram on your poster.
3. When you have completed all of your research and created your scientific-method diagram, organize the different elements to create a poster that conveys all of the information in a manner that is visually attractive.

Make sure your poster meets or exceeds the following assessment criteria:

* The poster demonstrates an understanding of why the historical figure’s work was important to medicine and clearly captures the figure’s important achievements.
* The information in the scientific-method chart is logical and demonstrates the use of research, reasoning, and creative thinking.
* The poster is organized, designed, and completed in such a way that its visual appeal helps to communicate the medical information.
* The poster is neat and uses proper spelling and grammar.

Example

