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|  | Biomedical Innovation  PLTW Biomedical Science |

# Activity 1.1.2 Research and Documentation Scavenger Hunt

Throughout your work in Biomedical Innovation, you will need to find reliable and credible information on current biomedical research. You will now explore a few of the tools available to you to access this information.

Use the internet to complete the following tasks. You may need additional resource documents located in the mission file. Attach additional documents that you are asked to find or to create to this sheet.

1. Your school may have access to online science and medicine databases. Explore the available resources at your school media center or your local library. Some scientific journal articles are available for free on the internet. Visit the *New England of Journal Medicine (NEJM)* free journal article access at <http://search.nejm.org/search?w=free+full+original+articles>.
   1. Search for articles relating to *Severe Acute Respiratory Syndrome (SARS)*. Make sure to keep “free full original articles” in your search.
      1. Scroll down the list of results and choose an *original article* that is available in full text.
      2. Write the citation for this article in the proper format. Refer to the PLTW Biomedical Science Documentation handout if necessary.
      3. Review any of the listed resources from your search. Is SARS spread by a virus or a bacterium? List the name of the virus or bacterium in the space below. Provide a proper citation for your source (if different from your source (if different from your source in the previous step).
   2. Search for an article related to the BRCA1 *mutation* and *cancer*.
      1. Choose one original article. Provide the citation below in the proper format.
      2. Review the abstract for this article. The abstract is a brief summary of a scientific paper.
      3. List the four sections of an article abstract published in the *New England Journal of Medicine*. Next to each section, provide a phrase that describes the role of this section.
      4. Using the information presented in the abstract, come up with one testable research question related to the findings of this study.
2. Visit the database of scholarly articles available at Google Scholar <http://scholar.google.com/>. Some full articles are available directly in PDF format. For other articles you may have to follow the link to the original source to determine whether the abstract or full-text article is available.
   1. For two of the following independent project ideas, list the key word or words that you would use to begin a search for relevant articles or resources.
      1. James is interested in investigating how chemicals in the environment, mainly in the water or in the air, affect human body system function and overall human health.
      2. Margot is interested in investigating new technology or treatments being developed or tested to provide better quality of life to war veterans who have list limbs or have experienced posttraumatic stress.
      3. Finn is interested in investigating alternative methods for smoking cessation that do not involve medication.
      4. Kerry is interested in comparing HIV prevention strategies in developing nation and in poorer communities in the United states in order to develop a prevention plan for her local community.
   2. Choose one of the four topics above and find two articles using Google Scholar that relate to this topic. One of the articles should be a full-text article. Provide the title of each article as well as one-to-two-sentence summary of the content.

* 1. Use Google Scholar to locate the following article.  
     Sulheim, S., Holme, I., Ekeland, A. (2006). Helmet use and risk of head injuries in alpine skiers and snowboarders. *The Journal of the American Medical Association, 295*(8), 919-924.
     1. Describe how the journal article is organized. Read through the paper and note the main topic headings.
     2. Describe the study *methodology*, the procedure followed by the investigators. How were subject groups organized? How was data collected?
     3. Compare the format of the abstract in this article to the format of the article you reviewed from the *New England Journal of Medicine*. Are there headings in the abstract? If so, how do they differ? What aspects do abstracts have in common regardless of format?

1. National and local news sites also provide information about current issues in health and medicine.
   1. Locate one interesting science or medicine article in an online newspaper or on an online news site (*NY Times, USA Today, CBS News, Fox News, ABC News*) that has been posted in the past week. Provide a citation for this article.
   2. Describe how this article related to a health-related challenge discussed in class in Activity 1.1.1.