

Gale In Context: Middle School

Science and Technology Careers Lesson Plan

GRADE LEVEL: 6-8

SUMMARY OF LESSON: Students will understand the demands of current science fields as well as the contributions past scientists and inventors have made to these professions.

FOCUS QUESTION: What current careers are available in the area of science and how have scientists and inventors from the past shaped these professions?

RESOURCE: *Gale In Context: Middle School*

TIME FRAME: 4-5 class periods

LEARNING EXPECTATION: As a result of the activities in this lesson, students will recognize the work of scientific pioneers, understand the demands of scientific professions, and recognize the contributions of past scientists and inventors to these fields.

PROCEDURES:

Steps/Activities by the Teacher:

- Generate a list of scientists or inventors who have contributed to your students' understanding of science (e.g. Marie Curie, Charles Darwin, Thomas Edison, Albert Einstein, Galileo, Bill Gates, Jane Goodall, Steve Jobs, Leonardo da Vinci, Isaac Newton, Sally Ride, and the Wright Brothers).
- Help students access *Gale In Context: Middle School* to search for these individuals. During their search, students should note the scientist or inventor's profession, the figure's major contribution to science, and the year the contribution was made.
- Generate a second list of at least twenty job opportunities in the area of science.
- Ask students to research these professions. Be sure the students' notes about these professions include general job descriptions, qualifications, salary ranges, etc.
- Bring in the classified section of the newspaper or display the results of an internet job search to show students how job postings are listed in the newspaper and online.
- Divide the students into groups of four. Ask the student groups to discuss their science profession research and then create classified ads/job descriptions for the careers. The group should divide up the professions between the four members, each taking at least one career. Each member is responsible for creating classified ads/job descriptions for their assigned professions.
- Have students use the computer to compile their ads into a single page that resembles the classified section of the newspaper.
- Allow student groups time to exchange classified pages. Ask students to critique other groups' ads and provide constructive feedback.
- Ask student groups to divide up the scientists they researched earlier. Each student is now responsible for "applying" each scientist to at least one classified ad that the group has created by completing a short job application for the scientist. An application may include the scientist's name, address, qualifications, past experiences in the field, and personal references.

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- Encourage students to mix creativity with factual content when creating their mock job applications.
- The “applications” students create can be used as a study tool. Have students read various applications to the class without saying the name of the scientist. Ask the other students to guess which scientist is being referred to in each application.

Steps/Activities by Student(s):

- Choose one of the scientists or inventors on the list your teacher has provided. Access *Gale In Context: Middle School* to search for your chosen individual. Use the **Highlights and Notes** tool to mark important information in articles about the figure. Make note of the person’s profession, major contribution to science, and the year the contribution was made. When you have completed your research, use **Send to...** to **Email** or add the documents you used to your **Google Drive** or **OneDrive** accounts, or **Print** or **Download** all of your information. You can also click the Highlights and Notes tool, then **View All Highlights and Notes**, and use Send to... to Email or add a summary of your Highlights and Notes to Google Drive or OneDrive.
- Research the list of professions provided by your teacher to find out more about them. Note the general job description, qualifications necessary for the job, salary ranges, etc.
- Share the information you find with your group members.
- Divide up the professions among your group’s members. Construct a classified section/job description of a newspaper that resembles one of the examples your teacher has provided. Each member is responsible for creating a classified ad/job description for at least one profession.
- Use the computer to compile your group’s completed classified ads onto a single page like the newspaper’s classified section.
- Exchange classified pages with other groups and critique each other’s work.
- Divide up the scientists or inventors you researched with your group members. Complete a short job application for each scientist or inventor. Have each scientist or inventor “apply” to at least one classified ad/job posting your group has created. Be creative, but remember the majority of the information within each application should be factual.

OUTCOME: Students will recognize great contributors to the world of science and familiarize themselves with current scientific career options.

RELATED ACTIVITIES:

English

Discuss cover letter and resume writing techniques with students. Ask students to write resumes and cover letters as part of their assigned scientists’ “applications.”

Global Studies

Have students research the historical context of scientific thought during each scientist’s career in order to better understand the challenges each figure faced.

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