

# Arab Contributions to Science (Lesson Plan)

**Overview:** In this unit, students will study science, particularly Arab science during the Golden Age of Islam. They will learn about the Arabic origin of the modern scientific method. Students will also gain knowledge about the famous House of Wisdom in Baghdad, an important center for the Arab sciences.

## Objectives:

Students will:

1. Define what is and is not science. They will consider the purpose of science.
2. Learn about the Arabic contribution to science.
3. Research the modern scientific method (as created by Arab scientists).
4. Learn about the House of Wisdom and become actors by playing the parts of important Arab scientists.
5. Fill their own House of Wisdom with knowledge and books they think are noteworthy.

## Activities:

1. For a preliminary approach to studying the subject of science, split the class into groups. Propose these questions: What is science? What is not science? What is the purpose of science? What would you create or research if you were a scientist? (Students can try to imagine future, possible inventions). Each group will research these questions and write a paragraph answer. They should share their answers with their classmates.

For help in starting, students might begin with looking up the dictionary definition of science: <http://www.m-w.com/dictionary/science>.

2. Ask the students to research how Arabs have influenced science and challenge them to write a short essay. Students should use books and the internet for help in their research. For starters, students can read about Arabic science using the following links:

<http://www.saudiaramcoworld.com/issue/200703/rediscovering.arabic.science.htm>

<http://www.ais.org/~bsb/Herald/Previous/95/science.html>.

[http://cwis.usc.edu/dept/MSA/introduction/woi\\_knowledge.html](http://cwis.usc.edu/dept/MSA/introduction/woi_knowledge.html).

Some questions to consider are:

- a) When did Arabic science flourish? Why and How? What were the major Middle Eastern cities where science flourished?
  - b) What are some of the fields of science that have been enriched by Arab scientists? Are there any specific discoveries or inventions attributed to these scientists?
3. Centuries ago Arab scientists were influential in helping to develop what today is the modern scientific method. Ask students to research and define this method. What is its methodology? What is the Arabic origin of the modern scientific

method? Ask the students to write a paragraph about their findings. Students might find the provided link to be a useful starting point:

<http://muslimheritage.com/topics/default.cfm?ArticleID=650>

4. The House of Wisdom in Baghdad was an important center for Arabic science. Using the attached link, the teacher can access a lesson plan in which students research the importance of the House of Wisdom. The lesson allows students to become actors and role play the parts of various Arab scientists:  
<http://www.outreachworld.org/resource.asp?curriculumid=38>
  
5. The CSAMES library has a young adult picture book on the House of Wisdom available for loan. *The House of Wisdom* (1999) by Florence Parry Heide tells the story of Ishaq, the son of a translator to the Caliph of ancient Baghdad. Ishaq is given the responsibility of searching for books to fill the House of Wisdom. Much like Ishaq, the students are to be assigned the responsibility of finding books and knowledge to fill their own House of Wisdom. Please see the attached sheet entitled “Build Your Own House of Wisdom” for more details.