THE HUNTINGTON
Library, Art Collections, and Botanical Gardens

Volunteer *Academy*

Beautiful Science: Syllabus

All classes will meet Friday mornings 9:30am – noon Munger Building, Seaver Classroom # 1

October 23
Orientation
A General Review of the History of Science
Overview of the School Program
History of Science Exhibit tour with *Dan Lewis, Dibner Senior Curator, History of Science and Technology*
Homework:
Readings: Part 1 & 2 from Hellemans (600 BC-AD 529; 530-1452)

October 30
General Review of History of Science
Station 1 Workshop: Astronomy
Homework:
Readings: Part 3 & 4 &5 from Hellemans (1453-1659; 1660-1734, 1735-1819)

November 6
History of Optics: Part 1
Station 2 Workshop: Optics
Homework:
Reading: Part 6 & 7 from Hellemans (1820-1894; 1895-1945)

November 13
History of Optics: Part 2
Station 3 Workshop: Medicine
Homework:
Reading: Lindberg (pp. 338-355)

December 4
Camera Obscura
Station 4 Workshop: Natural History
Homework:
Reading: http://www.bbc.co.uk/dna/h2g2/A2875430

December 11
Putting it All Together – Exhibition and Camera Obscura
Practice Round 1: Working with the Camera Obscura and School Program Booklet

January 8	Putting it All Together –Exhibition and Camera Obscura Practice Round 2: Working with the Camera Obscura and School Program Booklet.
January 15	School Tours begin.

Required Readings:

Hellemans, A., and Bunch B. *The Time Tables of Science* (New York: Simon Schuster, 1988), pp. 20-25; 58-61; 90-93; 146-149; 188-193; 268-279; 378-385.

Lindberg, David C. "The Science of Optics", in David C. Lindberg. *Studies in the History of Medieval Optics* (London: Variorum Reprints, 1983), pp. I, 338-368.

B.B.C., "Camera Obscura", http://www.bbc.co.uk/dna/h2g2/A2875430

Recommended Readings:

Sabra, A. "Ibn al-Haytham", *Harvard Magazine*, Sep. - Oct. 2003, http://harvardmagazine.com/2003/09/ibn-al-haytham.html

"Why the Sky is Blue?"
http://www.opticsforkids.org/teachersparents/articles/pdfs/why%20is%20the%20sky%20blue.pdf

"Lenses and Geometrical Optics"
http://www.opticsforkids.org/teachersparents/articles/lensesgeometricaloptics.html