



## *Appreciating Energy Conservation through the Arts*

Janet Pedersen, Murrieta Elementary School  
Murrieta Valley Unified School District, Murrieta, CA

**Overview:** Using art as a context for learning, students can explore the concepts of energy, electricity, and technology required in the production and representation of artwork, as well as the historical evolution of art and the means of producing it.

**Objectives:** Students will gain an awareness of various uses of electricity through the study of artists and their work. They will experiment with painting inside without electricity, both with and without the use of candles. They will then work outside and compare how the light affects their work. They will then compare their work to the various artists and determine the similarities and differences, according to the light being used at the time the work was produced.

**Subjects:** Art, Science

**Suggested Grade Level:** 2<sup>nd</sup> through 5<sup>th</sup> grades; this lesson can be geared up or down according to students' abilities.

### **California Standards Addressed:**

#### 3<sup>rd</sup> Grade

History-Social Science 3.5

Science:

Physical

Earth

Investigation and Experimentation

Visual and Performing Arts:

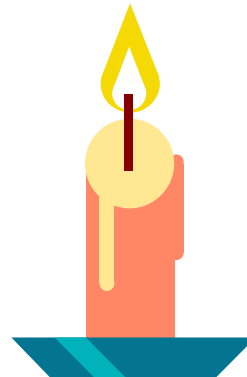
- 1.2 Describe how artists use tints and shades in painting
- 1.3 Identify and describe how foreground, middle ground, and background are used to create the illusion of space
- 1.4 Compare and contrast two works of art made by the use of different art tools and media (e.g. watercolor, tempera, computer)

- 1.5 Identify and describe elements of art, emphasizing line, color, shape/form, texture, space, and value
- 2.4 Create a work of art based on the observation of objects and scenes in daily life, emphasizing value changes
- 3.1 Compare and describe various works of art that have a similar theme and were created at different time periods
- 3.2 Identify artists from his or her own community, county, or state and discuss local or regional art traditions
- 3.3 Distinguish and describe representational, abstract. And nonrepresentational works of art.
- 4.1 Compare and contrast selected works of art and describe them, using appropriate vocabulary of art
- 4.2 Identify successful and less successful compositional and expressive qualities of their own works of art and describe what might be done to improve them
- 4.3 Select an artist's work and, using appropriate vocabulary of art, explain its successful compositional and communicative qualities

**Time:** 3-4 hours, over several days

**Materials:**

- Candles/matches
- White drawing paper
- Oil pastels
- Prints of the artists' works
- Objects to study



**Preparation and Background:** Students will study several artists and their works and identify the use of electricity in producing the work, as well as evidence of electricity being used as part of the subject matter. The teacher will supply books and prints to enhance learning.

**Procedure:** The teacher will display several prints by at least 3 different artists. In this lesson, Leonardo Da Vinci, Vincent Van Gogh, and Edward Hopper are used. The class will compare and contrast the work of these three artists, discussing possible light sources used. They can also identify electricity that is used as portrayed in the work of art. Then the teacher will turn out the lights and ask the class to focus on an object, such as a doll. The students will then sketch the doll. Next, the teacher will place candles

at various points in the room and the class will again sketch the doll. Last, the class will go outside and sketch the doll there.

**For Discussion:** The students will discuss the differences they observed and how it affected the way they saw the doll. Then they can go back and compare what they learned to the work done by the three artists. The teacher can then initiate a discussion on the invention of electricity and how it affects our lives and how having it to use makes our lives very different than those of Da Vinci and Van Gogh.

**Extensions:** Students can find and study other artists that lived before and after electricity was discovered.

**Resources:**

- Websites:
  - <http://www.mos.org/leonardo>
  - <http://www.vangoghgallery.com>
  - <http://www.ibiblio.org/wm/paint/auth/hopper>
  
- Books
  - Who was Leonardo Da Vinci? By Robert Edwards & True Kelly
  - Leonardo Da Vinci By Diane Stanley
  - Da Vinci (Getting to Know the World's Greatest Artists) By Mike Venezia
  - Amazing Leonardo Da Vinci (Inventions You Can Build Yourself) By Maxine Anderson
  - Vincent Van Gogh: Sunflowers and Swirly Stars By Joan Holub
  - Vincent Van Gogh: Portrait of an Artist By Jan Greenberg & Sandra Jordan
  - Vincent Van Gogh (Adventures in Art) By Caroline Breunesse
  - What Makes a Van Gogh a Van Gogh? By Richard Muhlberger
  - Edward Hopper: Painter of Light and Shadow By Susan Goldman Rubin
  - Edward Hopper: Summer at the Seashore (Adventures in Art) By Deborah Lyons and Edward Hopper
  - Edward Hopper (Artists in their Time) by Emma Foa
  - Edward Hopper: The Life of an Artist by Ray Spangenberg, Kit Moser, Diane Moser & Edward Hopper
  
- DVDs

- The Life of Leonardo Da Vinci (2003)
- Vincent: The Life and Death of Vincent Van Gogh (2005)
- Edward Hopper: A National Gallery of Art Presentations (2007)