DISCOVERING ART:
LIGHT IN PAINTING

The substance of painting is light.—André Derain

Grades K–3

I. Introduction

The Huntington is a perfect laboratory for exploring the nature of light. Shining surfaces from polished silver and mahogany to gleaming chandeliers and giant mirrors have a glittering effect that dazzles visitors. Students are going to notice light here. With some preparation they can begin to appreciate the techniques artists use to portray light in paintings. Artists can show us that things are shiny. They can take flat canvas and turn it into a likeness of three dimensional space. They can use light to spotlight important aspects of a painting, and to set a mood. Exploring light with children helps them master elements of both science and art.

II. Objectives

♦ Students will become more aware of the reflecting light around them and in paintings
♦ Students will identify two kinds of light, light that bounces (reflects) off surfaces and light that glows
♦ Students will be able to identify white as the color used to indicate shiny things in paintings
♦ Students will identify instances where white calls attention to faces and hands in paintings
♦ Students will produce their own artwork that reflect their growing knowledge about light in art and in the world
III. Standards Assessed

*Visual Arts Standards*
California Department of Education

**Standard 1.0**
*Artistic Perception*: Processing, analyzing, and responding to sensory information through the language and skills unique to the visual arts.

**Standard 2.0**
*Creative Expression*: Creating, performing, and participating in the arts.

**Standard 5.0**
*Connections, Relations, Applications*: Connecting and applying what is learned in each art form to learning in other art forms, subject areas, and careers.

IV. Background

Shiny things make us look at them. Have you ever taken a walk and noticed something glinting or shining in the grass, on the sand, or on a sidewalk? Our eyes are attracted to light. We want to know what is shining in a place that doesn't usually shine. From the time we are babies our eyes are learning about light and how it behaves in the world. Every person in the world is a light scientist. Every day of our lives is a light laboratory teaching us about how things look in light.

When we notice that something is shining we can say it is so because we can perceive the light coming into our eyes. But if we look carefully at shining things we can also see that they have a color. That color on the most reflective surfaces is white. Artists have observed this and you can see that they use white to show us that a surface is shining. Most oil painting is done in layers and the last layer of paint that the artist lays down is often the white highlight layer that shows us the places that stick out farthest into the light.

Draped fabrics that have luster and sheen are difficult to reproduce in painting. Careful observation of these draperies will help students understand the artist's toolbox of materials and techniques. We will begin by examining one of the portraits at the Huntington that contains luxuriously draped fabric.

V. Preparation Activities

Before visiting the Huntington, use the paintings and the discussion questions that follow to prepare students for the visit. Choose from the images on the following pages. Color images also can be accessed from the Huntington education page at [http://www.huntington.org/education/teachers.html](http://www.huntington.org/education/teachers.html).
Discussion Questions

1. What do you see in the painting?
2. Is a painting flat? Can you show me flat with your hand? (Palm up towards face, fingers tightly together)
3. Look at your hand. Now bend your hand so that your hand is wrinkled. (Curve fingers forward in a “C” shape) Did the shadows change? Which way has more colors—the flat hand or the curved hand?
4. Does anything in this flat painting look like you could feel bumps if you touched it?
5. How many colors did the painter use to paint this fabric?
6. If the dress is (color of dress) why do you think the painter used white on the dress?
7. Does the material look shiny?
8. If you turned out the light shining on this woman, would you still see light bouncing off the shiny part of her dress? Would you see any light glowing? Where does this light come from?
9. Does this person want to be looked at? How can you tell?
10. Does the shiny material in her dress make us look at her longer? Is the shiny fabric what we are supposed to look at in the painting? Is there anything else that makes us look? What colors are in this other part of the picture?
11. Do you think everyone who lived at this time wore clothes like this? Would you like to wear clothes made out of fabric like this to school?
Let's see if we can see more shiny things, things that reflect light in the next picture.

Discussion Questions

1. Can you see any white in this picture?
2. Are there shiny things in the picture?
3. What colors are closest to the people's faces?
4. What do you think the artist wants us to look at?
5. Where does the light come from that is bouncing off the white in this picture?
6. If we shut dark curtains over the windows of this room, what would we see in the picture?
7. Does morning light have a special color?
8. What time of day do you see your favorite kind of light?

alternate questions for the Joseph Wright of Derby painting

7. Have you ever seen a balloon glow with light?
8. What is your favorite color of balloon?

Questions for the Gallery Visit

1. When you walk out of the galleries try to see how many paintings contain shiny things that bounce light to your eye. Did the artists use white to show the shining parts?
2. Do you see things that make their own light? What colors do the artists use to show these glowing things?
3. Do you notice faces popping out at you as you look at the paintings? Is there white near their faces?
VI. Lesson Activities

1. **Shine Detectives**. Each pair of students has a flashlight. Standing a few feet apart, preferably in a dimly lit area, they take turns shining light on the clothes and body of their partner from head to toe. Students report which things reflected light or glowed. (Think of those light-up athletic shoes or the dials of certain watches)

   **Variation**. Have students make large white paper collars and cuffs out of paper. Try the flashlight scan again on students wearing the white collars and cuffs and see if they notice any differences. Try it in front of light colored backgrounds and then a dark background.

2. **Rembrandt’s Cheek**. Students look at a print of a Rembrandt painting that has half the face in light and half in shadow. Using flashlights and mirrors to check lighting effects, partners see if they can light each other’s faces in dramatic ways. They can experiment or they might choose a challenge card with a written direction to make the lighting “spooky,” “Angel-like,” “flat-faced,” or “Rembrandt-style.”

   **Extension**: Have students describe what kind of light would illuminate their face in that stylized way. Would it be sunlight, a lantern, a streetlight, candle light, the light from inside a refrigerator?

   **Fun fact**: Motion picture professionals have all sorts of specialized lingo. Movie lighting technicians use the expression “Rembrandt’s Cheek” for side lighting that leaves one side of the face in light and one in shadow.

3. **Cartoon Tricks**. Using funny papers and comic books have students search for examples of artists’ techniques in cartooning that show that something is shiny. (Balloons, eyeglasses, treasure, diamond rings, swords, bubbles, water in a pond or lake, a gold tooth, or shining white teeth) Ask them to notice if different artists use the same techniques. Chart out how different comic artists treat the same kinds of reflective surfaces.

   **Extension**: Look for some of the same types of reflective objects in paintings in an art book or on the Internet and see if the techniques used in oil or watercolors are the same. Discuss the two genres of painting and cartooning and come up with some reasons why reflection is treated differently in different types of art.
Vocabulary

**Beam:** a solid stream of light. The light from a flashlight is a beam of light. Holes in clouds will often allow sunlight to pour down in a straight beam.

**Cyanotype:** blueprint process photography where shadows are caught on light sensitive cloth or paper leaving a white outline on a blue background

**Draped:** position of fabric when it is curved and folded into a bumpy surface that shows both shadow and reflected light

**Emphasis:** special treatment from the artist on parts of the picture she wants you to look at first or longest. Often light plays a strong role in directing your eye to these places in the painting

**Flare:** bright often red burst of light that lights up an area for a short moment

**Glossy:** shiny surface that reflects light

**Glow:** when something produces light from inside

**Halo:** in pictures of angels or saints, yellow, white or gold that surrounds the head making it seem to glow

**Haze:** when bright light is mixed with fog, smoke, or mist making it hard to distinguish the edges of things

**Highlights:** where white is used to show the highest areas of an object or person

**Matte:** a non-shiny or flat finish

**Negative:** light image captured on film with black and white portions of the image reversed

**Patterned:** decorative designs, stripes or plaids that cover the surface of objects

**Positive image:** photo or painting that shows highlights in white and shadows in black

**Prism:** a piece of glass or clear plastic that has sharp edges and will bend white light into all the colors of a rainbow

**Profile:** when a person stands so that only one side of his face or body can be seen. The nose, chin and eyelashes stand out in this pose.
**Discovering Art: Light in Painting—Vocabulary**

**Ray:** a straight line of light narrower than a beam

**Reflect:** when light bounces off of objects

**Reflection:** a mirror image of something in still, flat surfaces, like water, a polished tabletop, a mirror

**Satin:** soft, shiny fabric that reflects light

**Shadow:** the dark area behind solid objects when they block light

**Silhouette:** outline of a person or object showing the shape in black with no other details or color.

**Taffeta:** a crisp and shiny fabric