

Still Life with Shadows

Overview: Students learn how shadows are made, what factors influence their size and shape, and begin relating this to their study of the sun.



Still Life, Fruit
E. C. Leavitt

Goals: This lesson will

Support concepts and skills: observation, working in small groups, oral reporting

Fulfill Learning Standards: ELA 23; Visual Arts 2.11, 3.4, 5.5, 5.6; Earth and Space Science (for grades 3-5) 14

Practice: writing inferential statements

Familiarize students with: still life paintings

Objectives for Students: Students will

Be able to: approximate where the light source was in relation to the still life objects when the painter painted the still life

Understand: that a shadow is created when an object blocks a light source; how shadows change size and shape depending on the angle of a light source; how this relates to their study of the sun.

Key Questions (to be answered by students):

1. What is a shadow? How are shadows made?
2. How does the angle of the light source alter the size and shape of shadows?
3. How does light affect color, shape, and three-dimensionality in a two-dimensional work of art?

Materials Needed: Flashlight; Miscellaneous objects

Museum Objects:

- Object shown is *Still Life, Fruit* by E. C. Leavitt, oil on canvas, 1888, In Memory of Gertrude Rothwell Clapp and Lowell Tuckerman Clapp, Gift from their four daughters (1973.7)
- *Still Life with Bottle of Olives*, by William Michael Harnett (1969.3)
- *Strawberries* by Henry G. Todd (in landscape gallery)
- *Summer Flowers* by Marguerite Zorach (in modern gallery)

Pre-Museum Visit -- Review definitions of observation, inference and evidence. Provide examples of all three in clear sentences. Review definitions of light source, shadow, and local noon.

Use a flashlight to demonstrate how shadows are made. Lead a discussion about what students notice. Possible guiding questions include:

- What is creating the shadow?
- What happens when I move the flashlight?
- How can the shadow be made longer/shorter?
- When is there no shadow at all?
- What happens when the distance from the light source to the object changes?

At the Museum -- Break students into four groups. Have each group work with one of the still life paintings (listed below) to write observations and inferences about the image, the shadows in the painting, and where they think the light source(s) is positioned based on their evidence. Ask students to share their findings in their small groups. Have a reporter from each group share the group's discoveries.

Post-Museum Visit – Set up a still life in your classroom (or ask the art teacher to do this in her classroom) with a single, strong light source for students to draw. Ask the art teacher to demonstrate how to draw shadows to give objects a sense of volume.

Follow-up lesson: What Time of Day Is It?

Documentation and Assessment Options: Keep their inferential statements and compare them to ones they later develop for other topics.

Links to Other Curriculum: FOSS Planetary Science Investigations 2 and 3; This lesson links to What Time of Day Is It?

Author of the lesson: Liz Canter