

Pre-Visit Activity

Title: <i>Science and Art... Observation Skills</i>
Subjects: <i>Language Arts, Science and Visual Arts</i>
Grade: <i>7-12</i>
Time: <i>Approx. one hour</i>

Introduction: This lesson teaches students how artists and scientists are similar. Students will collect specimens, observe carefully and make detailed drawings (studies). Students will view slides of Jamie Wyeth's studies/paintings of the dancer Rudolf Nureyev. They will use their observation skills again, this time with a painting.

Objectives:

The student will:

- collect specimens to study
- utilize their observation skills to gain information
- create a work of art based on their observations
- view slides of artwork
- write observations of artwork
- share observations with class
- discuss the similarities between scientists and artists

Materials:

drawing paper, pencil, colored pencils or pastels, erasers, compass, ruler, slide projector, slide #16,2,10,15,20

Vocabulary:

Caliper	Proportion
Color	Shape
Composition	Sketch
Elements of art	Specimen
Form	Studies
Line	Subject
Movement	Texture
Observation	Realism
Pattern	Value

Motivation:

Tell students that they will be gathering specimens to study, materials you are already studying are preferable. Explain that

scientists and artists make "studies" of their subjects that include notes, drawings, etc. Explain how scientists and artists take measurements to accurately show proportion.

Items for discussion:

Jamie Wyeth made hundreds of studies of Rudolf Nureyev. Jamie was obsessed with capturing Nureyev as accurately as possible. He used calipers to accurately measure Nureyev's body and record comparisons that would guide his work. Wyeth's sketches often included notations such as "calf is 2 widths of ankle" or "shoulder (outside) is 4 wrists." Show slide #16 *James Wyeth Measuring Rudolf Nureyev*

Procedure:

- Pass out paper, drawing materials, etc.
- Students should choose one or two specimens to draw from.
- Explain that they will use their observation skills to record information about what they see. Their drawing should include detailed information including colors, textures, patterns, values, movement, measurements etc.
- Encourage students to enlarge their drawings to use as much of the paper as possible.
- When students are finished ask them to share their "studies" with the class.
- Turn on slide projector and show *Double Image, Head, Nureyev (Study #21)*
- Have students divide their paper in two, on one half they should make written observations and on the half they should draw their observations.
- Discuss how their observation skills apply to viewing art.

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- Discuss how Jamie Wyeth's careful observations of details and light helped him portray a sense of realism.
- Discuss how artists make notes and sketches before they create their final work of art.

- write a poem describing an image

Mathematics:

- measure and weigh their specimens and compare with other specimens using a line graph

Science:

- correlate the scientific method: **purpose, hypothesis, procedure, data, conclusion**, with the method artists use when creating an artwork and discuss the similarities

Additional discussion:

The artist and scientist are explorers. They must be curious about the world and not quick to jump to conclusions. They both use their observation skills to gain information. Architects, engineers, industrial designers, archaeologists and anthropologists usually study both science and art in depth as part of their training. What other similarities can you find between artists and scientists?

Evaluation:

Did students:

- collect specimens to study
- utilize their observation skills to gain information
- use measurements to show accurate proportion
- create a work of art based on their observations
- view slides of artwork
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Interdisciplinary Connections:

Ask students to:

Language arts:

- write a paragraph describing an image giving detailed descriptions of color, tone, texture, smells, sounds etc.