



Lesson: Experimenting with Art

5th Grade

STANDARDS: California

6. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
 - a. Classify objects (e.g., rocks, plants, leaves) in accordance with appropriate criteria.
 - b. Develop a testable question.
 - c. Plan and conduct a simple investigation based on a student-developed question and write instructions others can follow to carry out the procedure.
 - d. Identify the dependent and controlled variables in an investigation.
 - e. Identify a single independent variable in a scientific investigation and explain how this variable can be used to collect information to answer a question about the results of the experiment.
 - f. Select appropriate tools (e.g., thermometers, meter sticks, balances, and graduated cylinders) and make quantitative observations.
 - g. Record data by using appropriate graphic representations (including charts, graphs, and labeled diagrams) and make inferences based on those data.
 - h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.
 - i. Write a report of an investigation that includes conducting tests, collecting data or examining evidence, and drawing conclusions.

2.0 Writing Strategies:

2.3 Write [research reports](#) about important ideas, issues, or events by using the following guidelines:

- a. Frame questions that direct the investigation.
- b. Establish a controlling idea or topic.
- c. Develop the topic with simple facts, details, examples, and explanations.

Science: Writing Research Reports on Colors



Motivation: How many colors are there? How are all these colors produced? Discuss how humans see color and the different ways in which we make more colors out of red, yellow, and blue.

Group Activity: Watch *Creating Color in My Studio in Painting with Elizabeth Murray*. Ask students to pay attention to the ways in which Murray describes color. She doesn't just talk about hue – she also talks about texture, for example. Ask students to look around the room and identify different kinds of colors. Ask them to write short descriptions of these colors using the five senses to insert details.

Independent Activity: Ask students to come up with a testable question about making color. It may be about texture or hue. For example, what makes a color lighter? How thick can a color be before it changes into a new color? How can you tell whether two colors are the same or different? Tell students to design experiments to test their hypotheses. If time permits, allow students to create art using the colors they have mixed.

Reflection: What types of questions were easy to test? Which were harder? How could the results of these experiments help artists create new work?