

# Expedition Guidelines

---

Between 1860 and 1900, the Western landscape played a central role in the development and promotion of an American identity. As a symbol, the terrain west of the Mississippi represented both the promise of expansion and the spiritual grandeur of nature. To document this territory and to convey its potential to the population of the Eastern Seaboard, interdisciplinary teams of expedition guides, scientists, and artists combed the landscape in search of the most significant natural wonders. The geologist F. V. Hayden strove, in his own words, to “lay before the public such full, accurate, and reliable information . . . as will bring from older states the capital, skill, and enterprise necessary to develop the great natural resources of this country.”<sup>1</sup> Through their collaborations, scientist and artists *interpreted* what should be conveyed about the West and how it should be presented. Below are two examples of works created during this period:



**Left:** Albert Bierstadt (American, 1830–1902)  
*View of Donner Lake, California*, 1871–1872  
Oil on paper mounted on canvas, 29 1/4 x 21 7/8 in.  
Fine Arts Museums of San Francisco, gift of Anna Bennett and Jessie Jonas in memory of August F. Jonas, Jr., 1984.54



**Right:** Thomas Moran (American, 1837–1926)  
*Grand Canyon with Rainbow*, 1912  
Oil on canvas, 25 x 30 in.  
Fine Arts Museums of San Francisco, gift of Mr. and Mrs. Robert F. Gill through the Patrons of Art and Music, 1981.89

During these expeditions, the teams of scientists would collect information across disciplines. Experts in identifying rocks, flora, and fauna would participate in gathering data, consisting of written journal entries, sketches, and measurements using various tools. These scientists would observe these dynamic natural environments using the five senses. They would compare and sort living and nonliving specimens, and organize their findings by constructing charts, graphs, scale models, and maps to communicate their data to others.

Assuming the roles of these early teams, today you will work in “expedition” groups to survey a specific area in Golden Gate Park. In contrast to the drive for development which spurred the nineteenth-century expeditions, your team will operate under the guise of being commissioned by the parks department to identify specific areas of the park that are significant but perhaps overlooked. In addition to finding and documenting these areas, your team is also responsible for developing an awareness campaign to spark the public’s interest in visiting the park and to build support for preserving the park for future generations.

---

<sup>1</sup> Quoted in Nancy K. Anderson, “The Kiss of Enterprise: The Western Landscape as Symbol and Resource,” published in *The West as America: Reinterpreting Images of the Frontier, 1820–1920* (Washington, DC: Smithsonian Institution Press, 1991), 237.

**Before setting out to explore your selected environment**, you should determine whether individual members of the group will fulfill specific roles—geologist, ornithologist, artist, etc.—or whether all group members will assume these roles collectively.

**While in the field**, you should complete the following activities in your journals:

- Make a map and include a legend.
- Make notes of significant flora and fauna. You, in collaboration with your team are in charge of deciding what is significant.
- Make sketches, both of the larger habitat and of detailed observations revealed through use of your viewfinders.
- Collect measureable data. Be creative with the tools you have been given.
- Write a personal field journal entry juxtaposing examples written from the points of view of a scientist and an artist. See these examples:

The artist Thomas Moran’s notation on a field study: “The general color of the Cañon [canyon] is a light Indian red. The upper surfaces gray intermixed with red & going to a yellowish red at the bottom of the Cañon. The near rocks of the foreground are a flesh color with gray surfaces & man holes w/water pockets. Where water lines enter the Cañon they are generally white from lime water from the levels above.”

From the Wilkes expedition of the Bay Area and the Sacramento delta: “The Socorro parrot’s bright color exactly matches the green leaves, so they are difficult to see.”

**Once you have completed collecting data**, meet as a group and discuss the following questions:

- Why is this place significant?
- What should other people know about this place?
- How can you communicate the significance of this place to others who have never visited it before?
- How can you encourage the preservation of this environment for the future?

**After considering these questions** prepare a brief presentation “pitch” to share with the group. In developing your presentation, assume that the park has commissioned your team to convey the importance of these places in an effort to both promote visitation and preservation. Consider how you would convey your ideas to others in this century.



Fine Arts  
Museums of  
San Francisco  
de Young  
Legion of Honor



CALIFORNIA  
ACADEMY OF  
SCIENCES

# Standards Addressed

## Next Generation Science Standards

### Science and Engineering Practices

Obtaining, Evaluating, and Communicating information

### Disciplinary Core Ideas

4-ESS2.E: Biogeology

Living things affect the physical characteristics of their regions. (4-ESS2-1)

### 5-ESS2.A: Earth Materials and Systems

Earth's major systems are the geosphere (solid and molten rock, soil, and sediments), the hydrosphere (water and ice), the atmosphere (air), and the biosphere (living things, including humans). These systems interact in multiple ways to affect Earth's surface materials and processes. The ocean supports a variety of ecosystems and organisms, shapes landforms, and influences climate. Winds and clouds in the atmosphere interact with the landforms to determine patterns of weather. (5-ESS2-1)

### MS-LS2.C: Ecosystem Dynamics, Functioning, and Resilience

Biodiversity describes the variety of species found in Earth's terrestrial and oceanic ecosystems. The completeness or integrity of an ecosystem's biodiversity is often used as a measure of its health. (MS-LS2-5)

## Common Core State Standards

### Speaking and Listening Standards

Grades 4, 5

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 / grade 5 topics and texts, building on others' ideas and expressing their own clearly.
4. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.