**Farallon Island Project  
Topic Choices**

1. Abiotic ecology of the Farallons: How do all of these features impact biodiversity?
   1. Geology of the islands and location on the edge of the continental shelf
   2. Weather conditions
   3. Upwelling of cold, nutrient rich water
   4. Oceanography
2. Biotic ecology of the Farallons: Descriptions of the plant and animal life on the islands:
   1. Marine life
   2. Marine mammals
   3. Birds
   4. Plants and insects
   5. Salamanders
   6. Create a food web demonstrating all of the trophic levels on the island and explain how the health of the island depends on the ecosystem working together
   7. Which organisms compete for the same resources?
3. History of humans on the islands
   1. Fur traders killing seals
   2. Collecting eggs
   3. Scientists living/working on the islands
   4. Conservation / Protecting the islands
4. How mice have affected the ecology of the islands
   1. How they got to the islands and then reached their current numbers
   2. Their effect on birds (which birds, in particular?)
   3. Why/when burrowing owls reached the islands
   4. Their effect on plants and animals other than birds
5. Effects of rodenticides on wildlife
   1. Diphacion, the first proposed rodenticide to be used
   2. Brodifacoum, the second proposed rodenticide to be used
   3. How rodenticides get into predators
   4. Other more environmentally friendly options for eliminating rodent pests
6. Rodenticide solution for the mice
   1. Timing of rodenticide release – time of year and amount of time each rodenticide will be used
   2. How the rodenticides will be released dispersed onto the islands
   3. How will they deal with the mice that die as a result of the rodenticide
   4. How they will protect other animals from the rodenticide
   5. Your predictions of how the rodenticide will impact the plant and animal biodiversity on the island
7. Do nothing solution for the mice
   1. Cycles of mice populations through the year; will they ever reach their carrying capacity? Why or why not?
   2. How food webs will be affected if mice remain on the island.
   3. Estimates of mice populations in the future
   4. Estimates of bird, plant, insect, and salamander populations (including the burrowing owl and ashy storm petrel) in the future if nothing is done