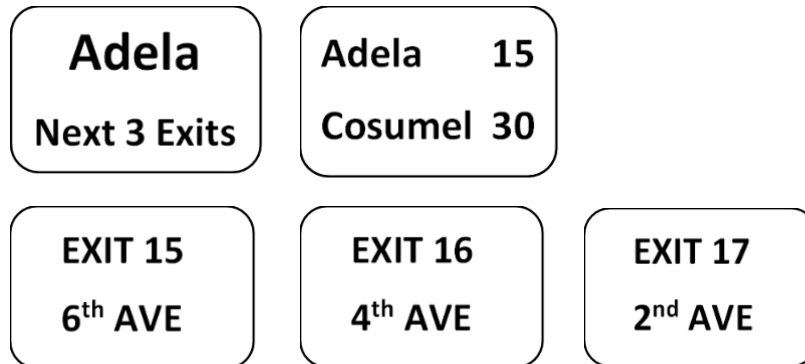


High Visibility Signs - Student Handout

Problems:

How can highway signs be made more visible and easier to read? How can these features be tested?

The Adela Valley Highway needs five new signs. They must contain the following information:



As a class, you will develop a method to test and measure the performance of road signs. Then, in teams, you will create model signs and apply your test to see which works best.

Procedure (Part 1 - Planning the Test):

You will be testing small models of highway signs. They will measure 8 cm x 5 cm.

You will need a method to assign a numerical score for a sign's performance in one or more of these areas:

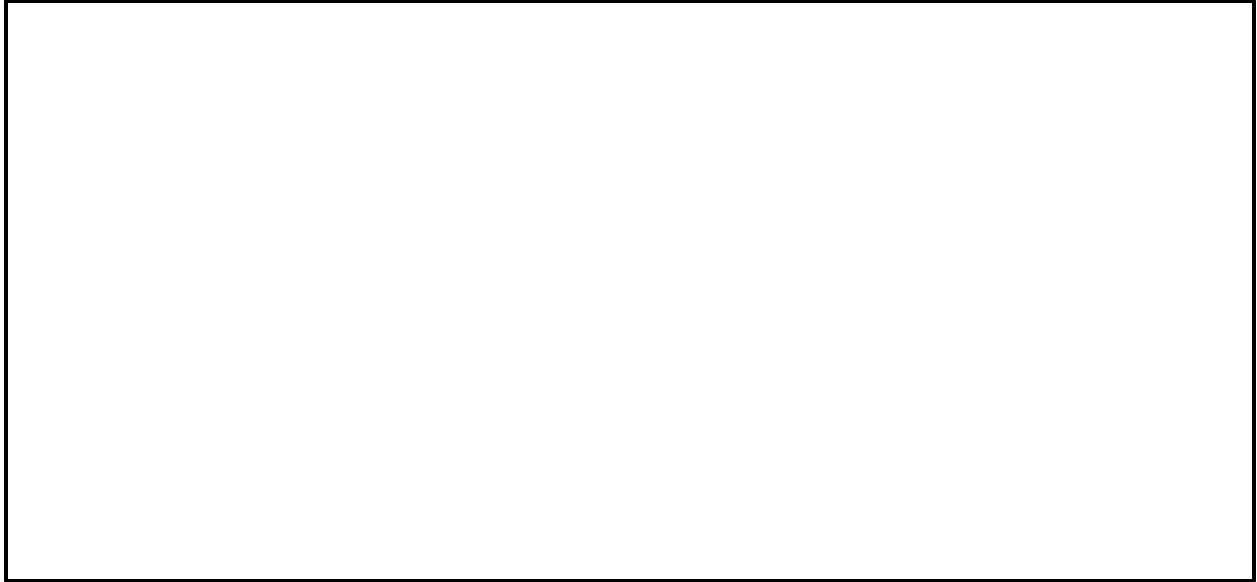
1. Visibility - How easy it is to spot a sign and recognize it as something important that you should read once you are close enough?
2. Legibility - How easy it is to read at a distance? From what distance can it be read?
3. Aesthetic Appeal - How does it look? Highway signs don't need to be pretty, but should not be too ugly. People in the area will have to see it from their window every day.

Visibility and Legibility could be tested under conditions simulating one or more of the following:

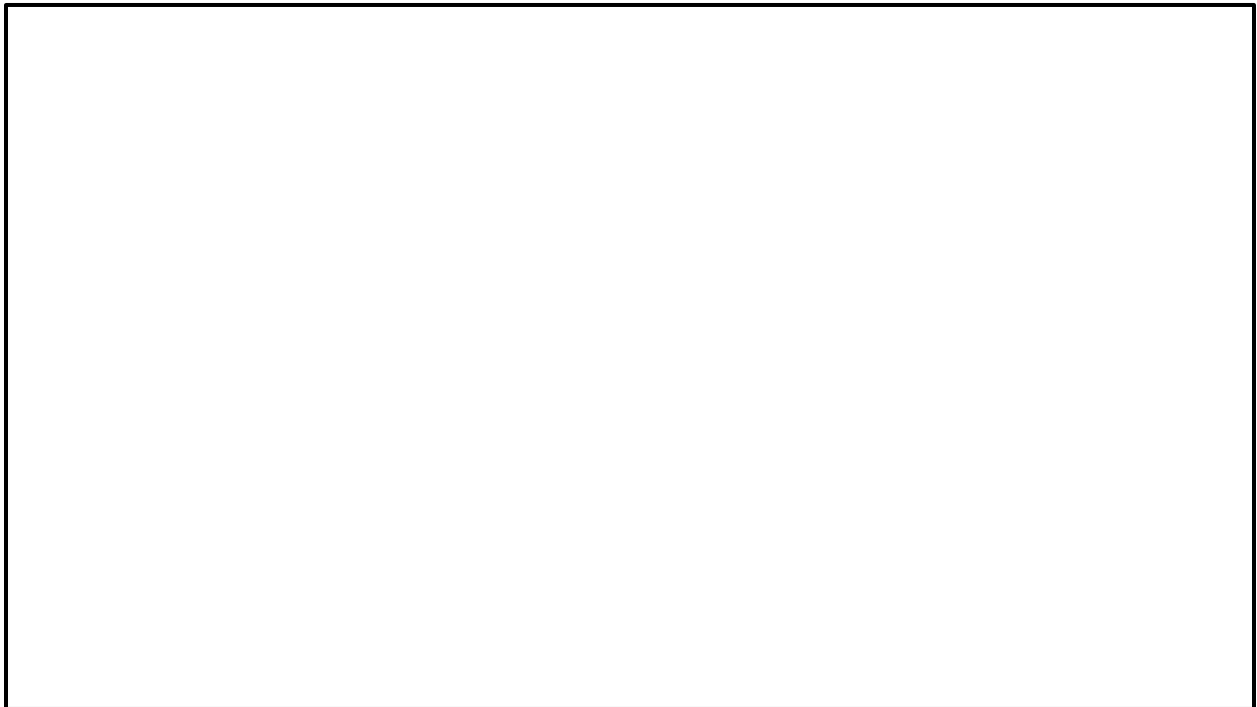
- full sunlight

- dim light
- night time with headlights

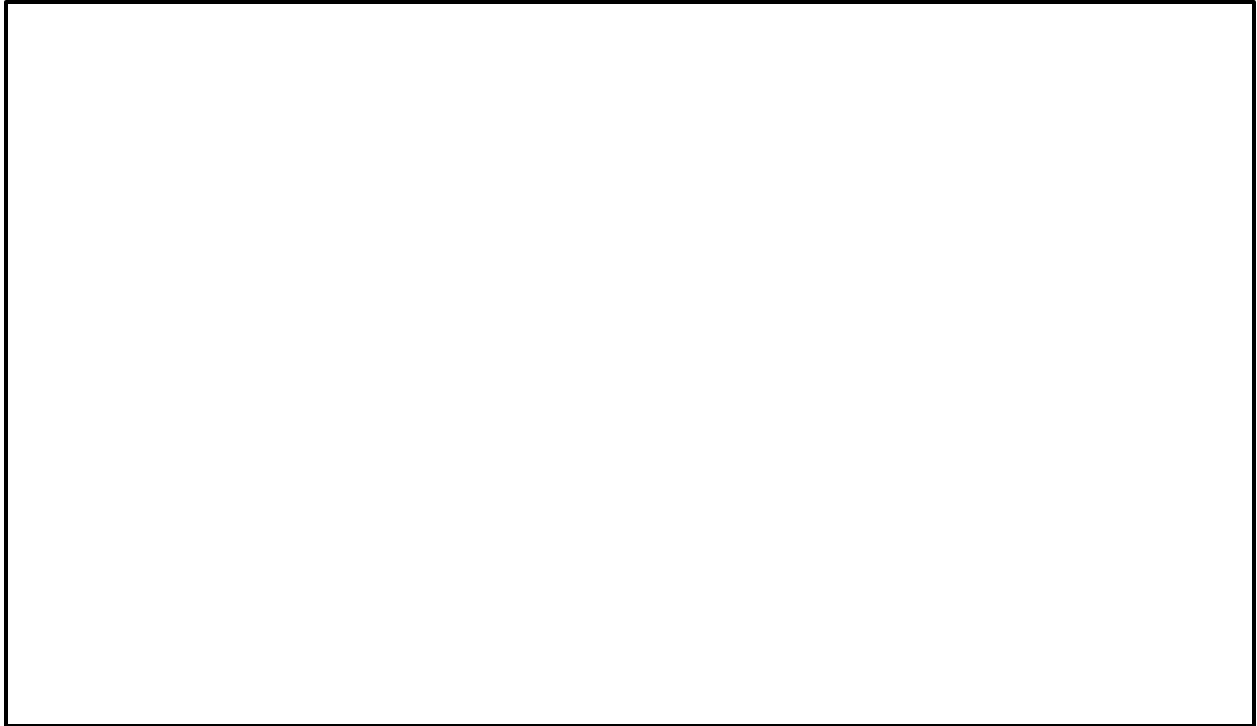
As a class, decide which of these tests you will perform.



With your partner, discuss how the class might be able to do the tests. How could you measure the results? How can you ensure the tests are fair? Record your thoughts below:



Now share your thoughts with the class. Ultimately, the entire class will need a procedure on which all can agree. Details matter. Be specific! Once the class has reached agreement, explain the procedure below:



Procedure (Part 2 - Creating Model Signs):

Using paper, markers, and any other material available, make one or more model signs. They must measure 8 cm x 5 cm. The information on the sign must be as given in the examples, but may be formatted differently. Consider the following options:

- All capital letters, or not?
- Abbreviations, or not?
- Numbers given as numerals (5) or spelled-out (five).

Procedure (Part 3 - Testing the Model Signs):

As a class, test all the signs. Decide which are the best. If time allows, modify your signs to make them better.