



Renovation for the Nation

Experiment Design

In brainstorming yesterday, you probably came up with some great ideas for making changes in your lifestyle. Now, it is time to pick the best idea and test it to see if it can be effective.

There are several ways to determine which idea is the best one. You may have a preference for which is your favorite, but some of your ideas may not be measurable. This means you may not have the ability in just one week to find out if the ideas will work or not. For example, here is a good idea:

- Students want to change how many fruits and vegetables they eat. We want to ask a local grocery store to donate fruits and vegetables, and then offer cooking classes to students and parents to teach them how to prepare vegetables.

While this is a great idea, it may be difficult to implement and measure the results. It will likely take more than a week to get the fruits and vegetables donated, and set up cooking classes. The results can be difficult to measure. If parents learn how to prepare the produce, how will we know if students are eating better?

For your experiment, you should select one of your ideas that are both *doable* and *measurable*. This worksheet will help.

Evaluation Worksheet:

Making a Proposal

1. Review these examples of possible ways to measure the results of your study.

Example	
Problem:	Students don't eat enough vegetables
Goal:	Get every student in our class to eat more vegetables every day.
Possible Methods:	<ul style="list-style-type: none"> • Make a list of fast food restaurants in our community with choices that make it easy to eat vegetables. • Talk with a cook or a grocer to find new vegetables that students don't know about or have not tried.
Way to Measure:	We will know we are successful if, on average, every student reports in a questionnaire that he or she eats at least 3 vegetables or fruits each day for two weeks.

2. Select a couple of the problems your group brainstormed yesterday and complete the following:

idea #1	
Problem:	
Goal:	
Possible Methods:	
Way to Measure:	Think about how you will collect information that will prove your goal has been met or not. You should include <i>who</i> you will be measuring (how many students), <i>how</i> you will measure (survey, interview, observation) and what the <i>results</i> would look like if you were successful.

idea #2	
Problem:	
Goal:	
Possible Methods:	
Way to Measure:	Think about how you will collect information that will prove your goal has been met or not. You should include <i>who</i> you will be measuring (how many students), <i>how</i> you will measure (survey, interview, observation) and what the <i>results</i> would look like if you were successful.

idea #3	
Problem:	
Goal:	
Possible Methods:	
Way to Measure:	Think about how you will collect information that will prove your goal has been met or not. You should include <i>who</i> you will be measuring (how many students), <i>how</i> you will measure (survey, interview, observation) and what the <i>results</i> would look like if you were successful.

3. Share these ideas with your teacher. Then, as a group, decide on the problem you want to address in your experiment. Use the chart below to write down the details.

How will you measure? (Collect information)	Who will you measure? (How many students?)	What are the possible results?

4. Write up your experiment. Include:

- Problem to fix
- Your strategy for fixing it
- The methods you used for measuring your progress. Be sure to plan one way to measure before your plan, and one way to measure after your plan.
- Any tools you will use to measure it (such as surveys or questionnaires).