Experimental Design

A. **Scientific methods**– ways, or steps to follow, to _____ _____.

1. Steps to the scientific method:

   a. Recognize the _____.

   b. Do research and form a _____.

   c. Design an _____ and test your hypothesis.

   d._____ your data.

   e. Draw _____ and _____ your results.

B. Experimental research design–

1. Form a **hypothesis**, which is a _____ that can be tested.
2. Plan the _____.

   a. **Independent variable**—the factor in the experiment that is _____.

   b. **Dependent variable**—the factor in the experiment that is being _____.

   c. **Constants**—variables that stay the _____.

3. Use a **control**—a sample that is treated like the other experimental groups except that the _____ variable is not applied to it.
4. Conduct several _____ of the experiment.
5. _____ your results and draw conclusions.

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