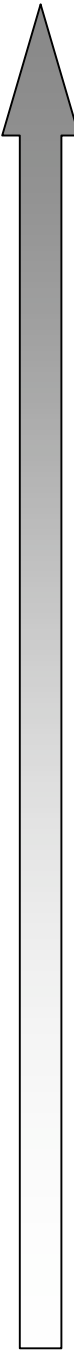
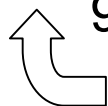


Steps of the Scientific Method

- 
1. Observation → Problem
 2. Research (*books, journal articles, internet, etc.*)
 3. Hypothesis- *a possible explanation to a problem that can be tested experimentally*
 4. Prediction
 5. Experimentation
 - A controlled experiment is based on a comparison of a control group with an experimental group.*
 - The control group and the experimental group are designed to be identical except for one factor.*
 - This factor is called the independent variable (manipulated variable).*
 - The dependent variable is the responding variable.*
 6. Recording and Analyzing Data
 7. Conclusion
 8. Repetition- *run the same experiment using the same materials and methods*
 9. Theory- *most probable explanation for a set of data, based on the best available evidence*
- 

Scientific Method Vocabulary

Correlation: 1. a relationship in which two or more things are mutual or complementary
 2. the degree to which two or more variables are related and change together

Causation: the fact that something causes an effect, or the action of causing an effect

CORRELATION \neq CAUSATION

Controlled Variables: variables that must be controlled or they will have significant effects on the outcome of the experiment

Level of Treatment: the value set for the independent variable

Method of Replication: the manner in which the experiment is repeated