

# MAKING AND USING A KEY

## Description:

Students will compete in this two-part activity to properly develop a key and then use a previously developed key to correctly identify an unknown object.

Number of Participants: 2

Approximate Time: 60 minutes

## The Competition:

### **Part I**

1. Students will be given various sizes of nuts, bolts, paper clips, marbles, pencils, or other objects.
2. Students will identify the group and begin to observe characteristics (attributes) that may be useful for identification.
3. Choose an attribute that will allow you to subdivide the objects into two groups, e.g., size (small/large), texture (rough/smooth), color (light/dark), weight (light/heavy), shape (square/round), or some other attribute.
4. Subdivide the whole group into two convenient groups (groups do not need to be of the same size).
5. Continue subdividing each group until you finally have each object in a single group.
6. Write a description of this process.
7. Turn in your results.

### **Part II**

1. Pick up a key and an unknown object.
2. Study the object. What attributes does the object have?
3. Begin at the top of the key.
4. Determine the name of the object by following through the key.

## Scoring:

Part #1 - 50%. Students receive one point for each step documented in the key. Usually there will be 8-10 steps and a bonus of 5 points if the event supervisor can follow through the entire key.

Part #2 - 50%. Students receive up to 15 points for properly determining the correct name of the object.

Ties will be broken with time for completion of Part #1.

