



### Echolocation and SONAR

Name: \_\_\_\_\_

#### Using Sound Rather than Sight.

One person wears the blindfold (do not cheat!). Stuff cotton balls under the blindfold below the eyes. The other person drops a pencil somewhere on the table or floor. The blindfolded person gets one chance to grab the object. They cannot *search* with their hands! Leave your hand where you grabbed. The other person measures how far off the grab is from the object with a ruler.

Now drop either the pencil or a pen/dry erase marker in a new spot. The blindfolded person must identify what was dropped and puts their hand where they think it is. Do this four more times.

Note: Make sure that sometimes it's behind them or between their feet!

#### Person 1:

Drop	Item dropped	Guessed item	How far off	Where dropped	Where guessed
<i>Example</i>	<i>Pencil</i>	<i>Marker</i>	<i>36 cm</i>	<i>Half a meter on the right side on the floor</i>	<i>15 cm to the right of their feet</i>
1					
2					
3					
4					
5					

#### Person 2:

Drop	Item dropped	Guessed item	How far off	Where dropped	Where guessed
1					
2					
3					
4					
5					

1. What location was the easiest to identify?
  
2. What location was the hardest?
  
3. Describe the mistakes for each location:
  - a. Close
  - b. Far away
  - c. Medium distance
  - d. Behind the person
  - e. Table
  - f. Floor
  - g. Between the feet
  
4. Did you get better?
  
5. How much practice do you think you'd need to be able to actually find objects?
  
6. How much practice do you think you'd need to identify objects 30 meters away? (Remember By this complex system of echolocation, dolphins and whales can determine size, shape, speed, distance, direction, *and even some of the internal structure* of objects in the water.)

