

## Scientific Method and Measurement

Name:

### Sunflowers and Fish

Period:

For each step in the experiments below, figure out what step in the scientific method the scientist is practicing. Write the letter of the step in the box. Each step will be used only once per experiment. Use your skill sheet on the scientific method to help you.

letter	sunflower experiment (scrambled up)	steps
	First, I plant two sunflowers. One of the flowers has a bright light shining on it from a different direction each day. The light on the other one stays in the same spot all of the time. Each day, I measure how far each flower turned towards the light, and write it down.	a) ask a question b) form a hypothesis c) test the hypothesis
	I compare the distances that each flower turned towards its light every day, and make a table.	d) analyze data e) draw conclusions
	When I point a bright light at a sunflower, will the flower turn towards the light?	f) communicate results
	I send what I learned to a gardening magazine in Alaska.	
	If I place a bright light near a sunflower, then I think that the flower will turn towards the light because plants need light.	
	My hypothesis is supported. I proved that the flower will always point towards the light that is shining on it, whether the light stays in the same spot, or moves daily.	



letter	fish experiment (scrambled up)	steps
	I post my results at the local pet store.	a) ask a question b) form a hypothesis c) test the hypothesis
	I compare how many fish were found on each side of the tank each time, and make a graph.	d) analyze data e) draw conclusions
	If I plant half of my tank with real plants, and half with plastic plants, then the fish will spend more time in the part of the tank with real plants because the real plants won't scratch them.	f) communicate results
	Do pet fish prefer real plants or plastic plants in their tank?	
	My hypothesis can be accepted. It was clear that there were always more fish on the side of the tank that has real plants.	
	Half of the tank is planted with real plants, then the other half with plastic plants. Each day at the same time, I count the number of fish on each side of the tank and write it down.	

