

Materials Needed: String, paper clip, clear plastic bowl, spoon or other stirring utensil, ½ teaspoon, glitter (may substitute finely cut gift ribbon or plastic)

Questions for the Scientist:

1. How does debris behave in a tornado?
2. What occurs at the center, or eye, of a tornado?

State Your Hypothesis: _____

Procedures:

1. Locate a clear plastic bowl and add water to the bowl until it is $\frac{2}{3}$ full.
2. Cut a piece of string that is $1\frac{1}{2}$ inches longer than the height of the bowl.
3. Tie a paper clip to one end of the string. Be sure to secure it very well.
4. Using a spoon or other kitchen utensil, stir the water counterclockwise.
5. Observe the movement of the water and record what you are seeing.
6. As the water is spinning in a circular pattern, slowly lower the paper clip into the center of the bowl.
7. Observe the paper clip, and remove it, and record how it behaved in the water.
8. Stir the water again, then pour in glitter or substitute while water is swirling. Record this behavior.

Key Questions:

1. How would you explain the movement—or lack of movement—of the paper clip?

2. How is the swirling water similar to the eye of a tornado?

Results and Application:

After studying your results, what conclusions can you draw? Do your results support your hypothesis? Explain your reasoning.