FLINN SCIENTIFIC

Name_____

# Amazing Modern Materials Worksheet

## Data Table/Observations

| Demonstration | Observations |
|---|---|
| Ferrofluid | |
| Liquid Crystal | |
| Nitinol Wire | |

Things to include in the observation table:

- Describe ferrofluid and its reaction to a magnetic field.
- Describe the reflected colors and color changes that were observed when the liquid crystal mixtures were placed against a black background and allowed to cool.
- Describe the color changes that were observed when the liquid crystal mixtures were viewed in front of a light source.
- Describe how the Nitinol wire reacts to different temperature water

1. Draw a picture showing ferrofluid and its reaction to a magnetic field. Label all parts of the diagram, including the location of the magnet.

2. During the ferrofluid demonstration the magnet is placed inside a resealable bag. What purpose does the bag serve?

3. In the liquid crystal demonstration, compare the color changes when the liquid crystal mixtures are viewed for reflected light—against a black background—and for transmitted light, in front of a light source.

4. In the nitinol wire demonstration, how does temperature play a role in the shape of the wire?