WHAT YOU’LL DO:

1. Pour a bit of vegetable oil into a shallow dish, just enough to make a thin film across the bottom.

2. Pour iron filings into the oil and mix the two until they have become a thick, sludge-like material. This is your ferrofluid!

3. Use a napkin or sponge to absorb any excess oil and allow the ferrofluid to become thicker. A good way to do this is to attach a magnet to the outside of the dish. This will solidify the fluid and let you dab away extra oil.

WHAT YOU NEED:

- A bar magnet
- A napkin or sponge
- Vegetable oil
- Iron filings (from the hardware store)
- A shallow dish
4. Attach a magnet to the dish containing the ferrofluid; the fluid will solidify and take the shape of the magnetic field it is in! Removing the magnetic field will allow the ferrofluid to flow like a liquid again.

The pattern that a ferrofluid makes depends on the amount of fluid used, the shape of the container it’s in and the strength of the magnetic field used.

CAUTION!
When disposing of your ferrofluid, do not pour it down the drain; this could lead to clogged pipes!

THINK QUICK!
What’s another word for magnetized?
A. Polarized
B. Ferrofied
C. Ionized

Did you Know?
- Ferrofluids are used by the military to coat aircraft; this helps them elude radar.
- Ferrofluid comes to you courtesy of the same folks who brought you Tang and freeze-dried ice cream: NASA scientists. They came up with the idea in order to confine liquids in space.

Learn more about magnets at: www.magnet.fsu.edu/education