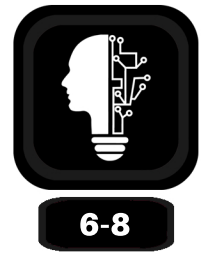
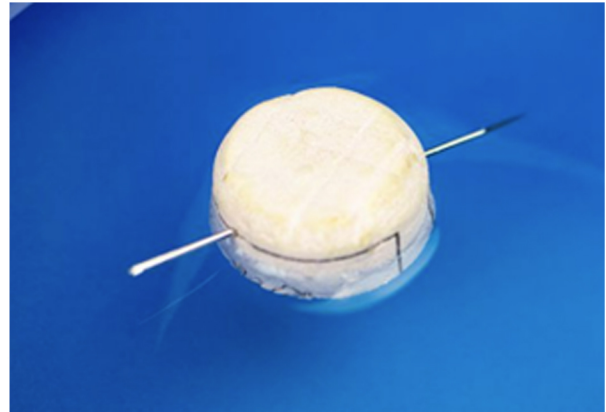


Compass



Materials:

- 1 Sewing Needle
- Magnets
- Cork
- Bottle Cap
- Water
- Pliers



Instructions:

1. Have each student or each group of students hold the needle, take the magnet and stroke the needle down the length of the needle 50 times.
2. Repeat step 1, BUT flip the needle around so you are holding the other end and flip over the magnet. Now repeat on the non-magnetized end of the needle
3. Cut a cork so it is about 1 to 2 cm thick
4. Insert Needle: push the needle through the cork
5. Fill bowl with water
6. Test the compass: place your cork and needle in the water. Compass should point North

Potential Variations:

- Compare your compass to other groups and see how they interact

The Science:

A compass works because its magnetic needle is attracted by the magnetism of Earth, which draws it to point to the constantly shifting Magnetic North pole. The Geographic North pole, on the other hand, is static and is located 1,200 miles (1,931 kilometers) north of the Magnetic pole