Demagnetizing (chose the method that works best for you)

<http://somup.com/cr1ro0qJdH> Demagnetizing Objects (1:50)

* Hammer the magnetic object a few times as squarely as possible, removing the hammer immediately from the magnetized object (like beating a drum) so that the object can vibrate from the hammer strike.
* Drop the magnetic object several times on a hard surface (not your house floors!).
* Heat the magnetic object using natural gas (methane, propane, butane gas) as in a Bunsen burner, grill, or camp stove. Hold the magnetic object with tongs in the direct flame for 1 – 2 minutes. Set it aside on a flame retardant surface to cool.
* Place the magnetized object in a solenoid (coil of wire) and pass current through the solenoid. Start with a higher current and slowly reduce it until it's zero. Alternating current rapidly switches directions, changing the orientation of the electromagnetic field. The magnetic dipoles try to orient according to the field, but since it's changing, they end up randomized.

*Geographic* N

*Geographic* S

N

S

Magnetizing

* We start with the knowledge that opposite poles of magnets **attract** and like poles of magnets **repel**.
* Looking at a compass, the needle pointing NORTH, must actually represent a “SOUTH” pole (since S is attracted to N) as shown to the right:
* To magnetize a nail with particular poles, we will use a strong magnet (cow magnet).

Cow Magnet

Cut Nail

N

“Rub the nail in a “loop”

N end

* We need to identify the poles of the cow magnet (use a field compass).
* Whatever end of the cow magnet is used will magnetize the nail to the same pole. For instance, if one “rubs” the N end of the cow magnet beginning at the head of the nail, then the head of the nail will be “N.” (*as shown to the right*)

Cow Magnet

Cut Nail

S

“Rub the nail in a “loop”

S end

* One the other hand, if one “rubs” the S end of the cow magnet beginning at the head of the nail, then the head of the nail will be “S.” (*as shown to the right*)
* BE SURE TO “RUB” THE NAIL USING A LOOP PATTERN.