

Magnetic Materials and Permanent Magnets



Purpose: To demonstrate basic characteristics of magnetic materials.

Location: Room 146, shelf M4

Lodestones can be used to show that magnetic materials exist in nature. The Alnico bar magnets can be used to show that like poles attract and unlike poles repel each other. The broken bar magnet can be used to show that each end still has two opposite poles (i.e. There's no such thing as a magnetic monopole.). The ceramic magnet can be used to show that not all magnets are made of metal, or necessarily conductive. The Neodymium magnets show that incredibly strong magnets can be made. "Cow" magnets are used to retain ingested pieces of metal safely in a cow's first stomach. The horseshoe magnets will stick to the white board or any other steel objects. The ring magnets on the pencil can be stacked so each one repels the one below it, resulting in "levitation". Likewise, the magnetic

rotor simulates magnetic “levitation” with a single point of contact providing stability. (The spinning rotor has red lights that can be made to flash by touching your thumb across the terminals on the end. Insert the plastic piece in the center slot to make the lights go off when you’re done.)