Friday Jan 27, 2017

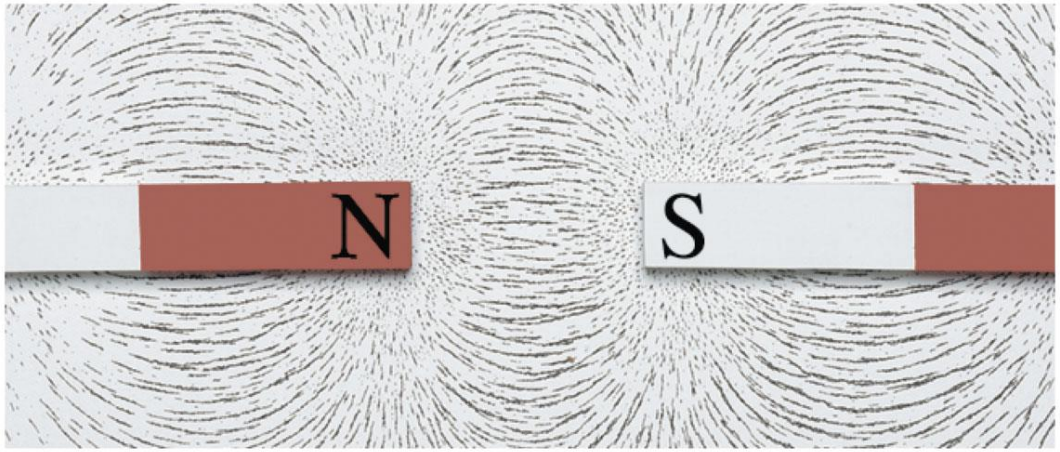
Last time

- Visualizing electric fields: electric field lines
- Electric field of a dipole on axis: $1/r^3$ falloff of field
- Motion of charged particles in electric fields
- E-fields of other objects: using superposition to avoid doing more work.
- Midterm question

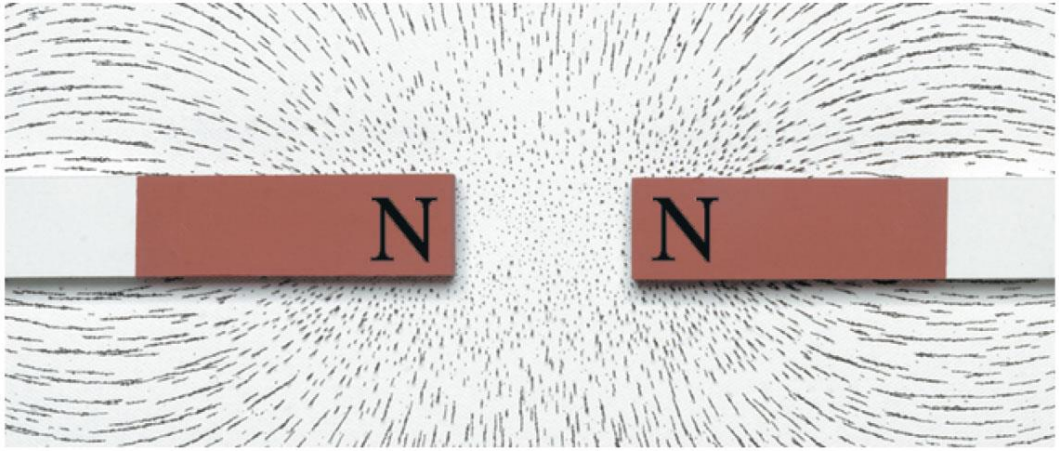
This time

- The electric field: demonstrations
- Calculating electric field: Group Activity

Visualizing E-field: field lines



Magnetic field lines



You are already familiar with the idea that magnets set up a magnetic field. This can be demonstrated with iron filings on paper over top of a magnet.

Electric fields also have "field lines" but we have less intuition about them from everyday experience

Visualizing E-field: field lines