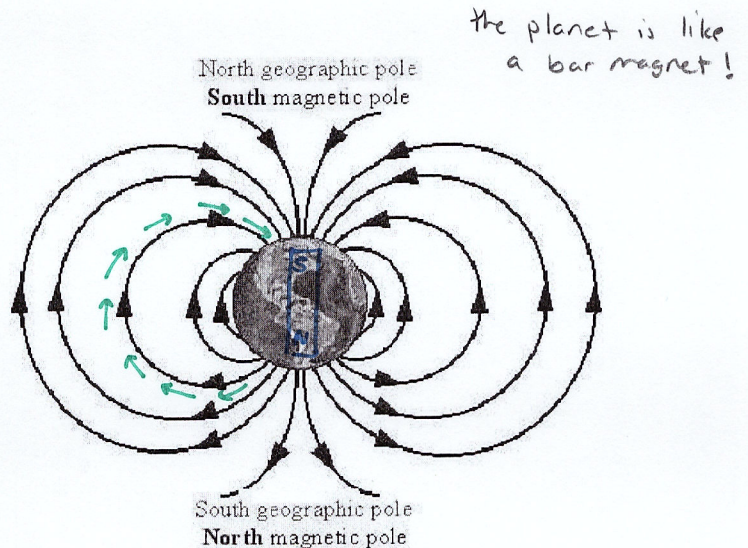
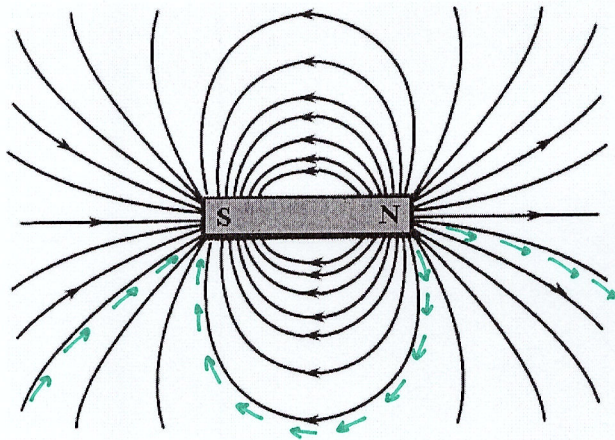


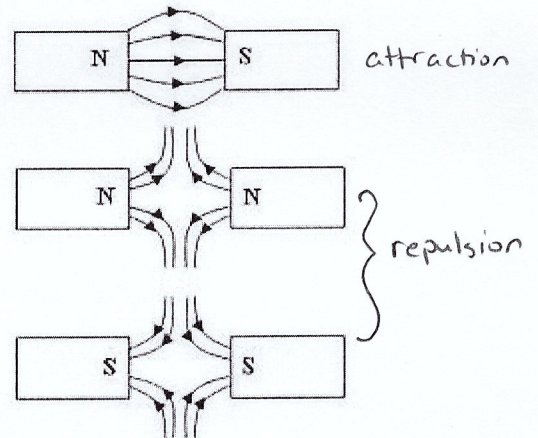
Magnetic Fields

- Just as each charge will produce electric fields, every magnet will create magnetic fields
 - Magnetic fields are also vectors fields that have a specific direction
 - *○ The direction of a magnetic field is defined by the direction the north end of a compass needle points when it is placed in a magnetic field
 - Example:

↑ north end of compass needle



- * • In conclusion, magnetic field lines always point out of the north pole and always point into the south pole
- Recall that opposite charges attract and similar charges repel. These interactions could be explained by electric fields lines. The same is true for magnetic poles; like poles repel (ie. north vs. north or south vs. south) and unlike poles attract (ie. south and north)



- Summary of the three fields

Field	Source	Direction
Gravitational Fields	masses	toward mass only
Electric Fields	charges	away (positive) or towards (negative) charges
Magnetic Fields	magnets	away (north) or towards (south) magnetic poles

Now try pg. 136 #1-6 (acceptable)