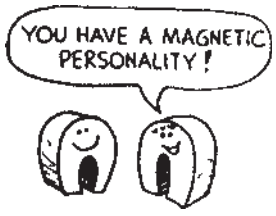
Name _____ Class _____ Date _____

Concept-Development Practice Page **36-1**

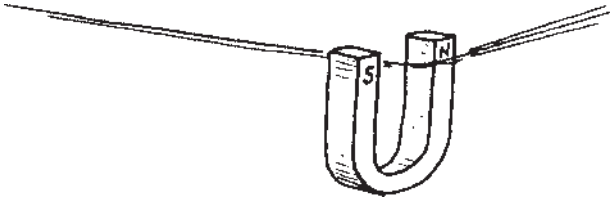
Magnetism

Fill in each blank with the appropriate word.

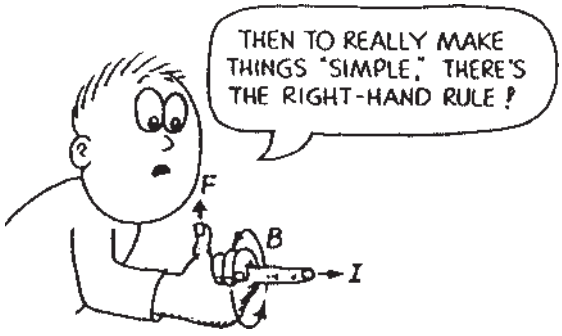
1. Attraction or repulsion of charges depends on their *signs*, positives or negatives. Attraction or repulsion of magnets depends on their magnetic _____, _____ or _____ .



2. Opposite poles attract; like poles _____.
3. A magnetic field is produced by the _____ of electric charge.
4. Clusters of magnetically aligned atoms are magnetic _____.
5. A magnetic _____ surrounds a current-carrying wire.
6. When a current-carrying wire is made to form a coil around a piece of iron, the result is an _____.
7. A charged particle moving in a magnetic field experiences a deflecting _____ that is maximum when the charge moves _____ to the field.

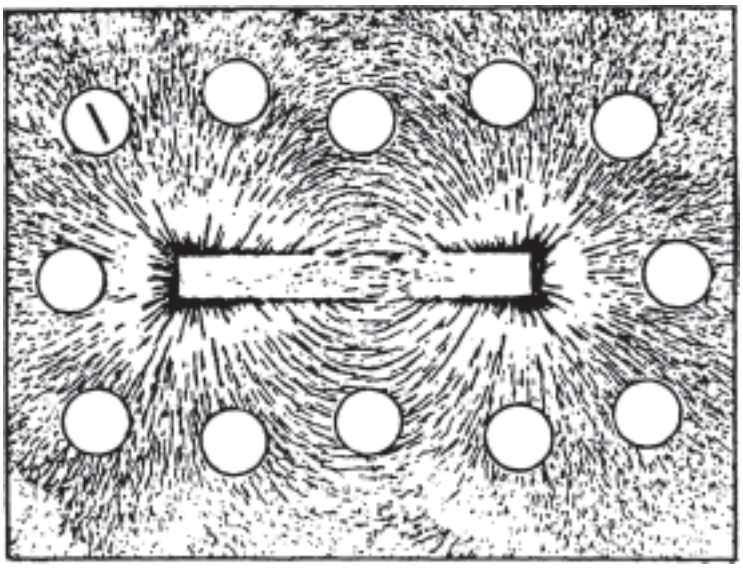


8. A current-carrying wire experiences a deflecting _____ that is maximum when the wire and magnetic field are _____ to one another.
9. A simple instrument designed to detect electric current is the _____ ; when calibrated to measure current, it is an _____; when calibrated to measure voltage, it is a _____ .
10. The largest size magnet in the world is the _____ itself.



CONCEPTUAL PHYSICS

11. The illlustration below is similar to Figure 36.4 in your textbook. Iron filings trace out patterns of magnetic field lines about a bar magnet. In the field are some magnetic compasses. The compass needle in only one compass is shown. Draw in the needles with proper orientation in the other compasses.



12. The illustration below is similar to Figure 36.13 (center) in your textbook. Iron filings trace out the magnetic field pattern about the loop of current-carrying wire. Draw in the compass needle orientations for all the compasses.