

Magnetic field-terminology (English TP)-key words (Slovak TP)

Pople, S.: Complete Physics

1. Explain what is magnetism, magnetic field strength?
2. How are permanent magnets (magnetic needle-magnetka), electromagnets (relay-starter motor, electric belt) used?
3. Explain these terms magnetic poles, magnetization of soft and hard magnetic materials, magnetic field lines, compass, and solenoid.
4. Sketch magnetic field lines of permanent magnet, current- carrying wire (use the 1st right hand rule), coil (use 2nd –grip- right hand rule, cork screw rule).
5. Explain what is function of a core of a coil?
6. Sketch a current- carrying wire with direction of current in magnetic field of a permanent magnet. Sketch the magnetic force acting on the wire using Fleming's left hand or equations

$F = Q (v \times B)$ or $F = I (l \times B)$ where Q is charge of a particle, v – velocity of the charged

Particle(actually direction of current), I – current, l – length (vector) of the wire

in magnetic field, B – vector of intensity of magnetic field

7. Explain turning effect on a coil in magnetic field.
8. Sketch and name basic parts of a torque electromotor (a stator-permanent magnet, a rotor – a coil, commutator - split ring. Explain functions of the parts.