The Big Fat Quiz on Properties and Changes of Materials

1) Name two natural materials (wood, stone, cotton, soil, oil, any natural metals)
2) Name a magnetic material. (e.g. steel not a radiator)
3) Name a transparent material. (e.g. glass not window)
4) What are the three levels of transparency called? Transparent, translucent, opaque
5) Name a thermal conductor.
6) Name an electrical conductor.
7) What is the opposite of a conductor? (Insulator)
8) Name a material that would dissolve in a liquid to form a solution. (e.g. Sugar, salt)
9) Write the meaning of these properties of materials
    a. permeable (lets gas and/or liquid through)
    b. flexible (easily bends)
    c. absorbent (soaks up water/liquid)
10) Name two properties of each of these materials which make them good for these jobs:
    a. Nylon fabric used for an umbrella (Flexible, waterproof, easily coloured/printed onto)
    b. Glass used for a greenhouse (Transparent, strong, long lasting)
    c. Plastic used for making electrical plugs (insulator/doesn't conduct electricity, hard wearing, mouldable)
11) What is a solid? (Form and stable in shape, not a liquid or fluid)
12) What is a liquid? (A substance that flows freely but can be measured by volume)
13) What is a gas? (An air-like fluid substance which expands freely to fill any space available)
14) What is a solution? (a liquid mixture in which the minor component (the solute) is uniformly distributed within the major component (the Solvent)
15) What is the correct scientific word for describing something that does not dissolve in water? Insoluble
16) Name two things that would make a solid dissolve quicker in water. (add more heat, stir it more quickly/for longer, make the solid into smaller particles)
17) Name five reversible changes (evaporation, filtering, sieving, melting and dissolving)
18) Name two irreversible changes (burning and rusting)
19) Explain the difference between melting and dissolving. (Melting requires heat. Melting only requires one substance and the solid and liquid are the same material. Dissolving requires two materials, and the result is a mixture of both)
20) Name the three ways that mixtures might be separated (filtering, sieving and evaporating)