

Mix and Flow of Matter Summary & Review

<p>Key Concepts Science Focus 8 (Unit At A Glance p. 90)</p>	<p>Guiding Questions and Activities to Help you Study</p>
<p>Topic 1 The <u>Particle Model of Matter</u></p>	<ul style="list-style-type: none"> - What properties distinguish solids, liquids and gases (p.7)? - What are the key ideas in the Particle Model of Matter (p. 8)? - Describe the action of particles in solids, liquids and gases. (p. 9-10) - Describe the Changes of State and the terminology used, when a substance undergoes a specific change of state. (p. 11-12)
<p>Topic 2 Classification of Matter <u>WHMIS</u></p>	<ul style="list-style-type: none"> - How is matter classified? (p. 13) - What is the difference between a homogenous and a heterogeneous mixture? (p.14) - Describe a suspension, a colloid, and an emulsion. (p.15) - What conditions must be present to enable a material to dissolve in another material? (p.17) - Explain the difference between a solute and a solvent. (p.18) - Why is water called 'the universal solvent'? (p.19) - What affects the rate at which a material will dissolve? (p.19) - What is a saturated solution? (p.21) - Why are some substances insoluble? (p.24)
<p>Topic 3 Solutions (mixing, dissolving, solute, solvent)</p>	<ul style="list-style-type: none"> - Describe the 'desert tent' method of separation. (p.28) - What is desalination? (p.28) - Describe how distillation is able to separate the parts of a solution. (p.29) - How is petroleum separated and the fractional parts collected? (p.30) - How is ore (such as gold) mined and collected? (p.31) - Describe, in general terms, how sugar is processed from sugar cane. (p.36)
<p>Topic 4 Viscosity and Flow Rate</p>	<ul style="list-style-type: none"> - How is the thickness or a thinness of a fluid measured and what is it called? (p. 40) - Describe some practical applications of the knowledge about viscosity. (p.45) - How is viscosity in different fluids affected by temperature? (p. 48-49)
<p>Topic 5 Density</p>	<ul style="list-style-type: none"> - Calculate density using a formula. (p.57) - How are mass and volume related, when determining density? - Describe the density of solids liquids and gases, using the particle model. (p.51) <p>(Calculated by dividing mass by volume) Response to change in temperature</p>
<p>Topic 6 Buoyancy</p>	<ul style="list-style-type: none"> - How is buoyancy determined? - Describe how a ship (made out of steel) can float.. - How does a '<i>cartesian diver</i>' work? - What is average density and what benefits does it have? - Explain '<i>Archimedes Principle</i>' and how he came to formulate it. - Describe how scuba gear works. (p. 69)
<p>Topic 7 Fluid Pressure (Calculated by dividing force by area)</p>	<ul style="list-style-type: none"> - Calculate pressure using a formula. - What conditions must be met to compress a gas? (p. 73) - Provide some examples of the advantages of compression. - What effect does atmospheric pressure have on our body? (p.75) - How is atmospheric pressure affected by altitude? (p.75)
<p>Topic 8 Fluid Systems Hydraulics Pneumatics</p>	<ul style="list-style-type: none"> - Describe how a fire extinguisher works. (p.79) - Describe the components needed to make a hydraulic system. (p.80) - What is the primary difference between hydraulic systems and pneumatic systems? (p.81)
<p>Design a Concept Map linking the ideas introduced and reinforced in this Unit on Mix and Flow of Matter</p>	
<p>Try some of the Practice Quizzes to see how much you have recalled from this Unit</p>	