




<b>Assess your learning – Work, Energy &amp; Power</b> Rate your understanding of this chapter ( <i>be honest!</i> )	 No	 Kinda	 Yes	Revised for <b>Week            20 Exam</b>	Revised for <b>Week            30 Exam</b>
I can solve problems involving work done and power output of moving particles. <b>E.g.</b> A toboggan is pulled across horizontal ground by a pulling force of $120\text{ N}$ . The force makes an angle $\alpha$ , where $\tan \alpha = \frac{3}{4}$ , with the ground. (i) If the toboggan moves a distance of $40\text{ m}$ , find the work done. (ii) If this took $90\text{ seconds}$ , find the power output.					
I can use the Law of Conservation of Energy to solve problems. <b>E.g.</b> A particle slides down a smooth surface which is inclined at an angle of $60^\circ$ to the horizontal. It starts from rest and travels a distance of $15\text{ m}$ . Find its final speed.					
I can solve problems involving impulses. <b>E.g.</b> A sledge hammer of mass $5\text{ kg}$ is used to drive a $2\text{ kg}$ pole into the ground. The sledge, right before impact, has a downward velocity of $3\text{ m/s}$ . Find the speed of the pole immediately after impact, when the sledge has come to rest. Find, also, the imparted to the pole and the sledge.					
I can solve problems involving the principle of conservation of momentum. <b>E.g.</b> Two masses of $6\text{ kg}$ and $2\text{ kg}$ hang from a smooth pulley at the ends of a light inextensible string. The system is released from rest. After $3\text{ seconds}$ , the $6\text{ kg}$ picks up a $3\text{ kg}$ particle that is at rest; Calculate the new acceleration of the system.					