Year 10 – Science Autumn Term 1

Physics Unit 7: CP3 Conservation of Energy, CP7-8 Energy - Forces Doing Work and Forces and their Effects			
Physics Unit 7	CP3 Conservation of Energy	Week 1	How can energy be stored and transferred? What is the conservation of energy?
			How is energy stored and transferred when a ball drops?
			How do we calculate the efficiency of energy transfers?
			How do we represent and analyse energy transfer diagrams?
		Week 2	How do we control energy transfers – using conductors and insulators?
			How do we control energy transfers - insulation practical
			How can we calculate how much energy is stored in an object that is off the ground or moving?
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		Week 3	What are non-renewable energy resources, how do they work?
			What are renewable energy resources, how do they work?
			How do we use solar cells?
			How can energy change in a system?
		Week 4	How can we change or store energy in a system?
			What is work done and how can it be measured and calculated?
			How can we apply ideas about work and energy to pyramids?
			What is power and how is it calculated?
	CP7-8 Energy-Forces, Doing Work and Forces and Their Effects	Week 5	How can I measure my personal power?
			What is the difference between contact and non-contact forces?
			How can I show non-contact magnetic forces?
			How can I show non-contact electrostatic forces?
		Week 6	How do non- contact forces compare?
			What are vectors and scalars?
			How do we make and resolve forces in a free body diagram? (HT)
			Topic Review.
PAZ		Week 7	PAZ
Chemistry Unit 7: CC5-7 Bonding, CC8 Acids			
Chemistry Unit 7	CC5-7 Bonding	Week 8	What are ions?
			How do ions join to make a new substance?
			What are the properties of ionic substances?
			Ionic bonding practise.