Department Curriculum Map 2014-15

Department	Science

Skills required in Year 11

Year	AUT1	AUT2	SPR1	SPR2	SUM1	SUM2	Secured
11 Skills Covered	*Observation* *Measurement* *Analysis* *Conclusion* **AO1 (recall, select and communicate their knowledge and understanding of science)** **AO2 (apply skills, knowledge and understanding of science in practical and other contexts)**	Observation Designing and planning investigations Measurements Presenting data Conclusions **AO1 (recall, select and communicate their knowledge and understanding of science)** **AO2 (apply skills, knowledge and understanding of science in practical and other contexts)** **AO3 (analyse and evaluate evidence, make reasoned judgements and draw conclusions based on evidence)**	Observation Presenting data Data analysis **AO1 (recall, select and communicate their knowledge and understanding of science)** **AO2 (apply skills, knowledge and understanding of science in practical and other contexts)**	Observation Planning measurements Presenting data Conclusions Evaluation Analysis Handling data **AO1 (recall, select and communicate their knowledge and understanding of science)** **AO2 (apply skills, knowledge and understanding of science in practical and other contexts)** **AO3 (analyse and evaluate evidence, make reasoned judgements and draw conclusions based on evidence)**	Observation Planning measurements Designing and investigation Presenting data Drawing conclusions Evaluation Analysis Handling data **AO1 (recall, select and communicate their knowledge and understanding of science)** **AO2 (apply skills, knowledge and understanding of science in practical and other contexts)** **AO3 (analyse and evaluate evidence, make reasoned judgements and**		

					draw conclusions based on evidence)		
Theme/ Focus/ Content	*B2a* *Cells* *diffusion* *photosynthesis* *Distribution of organisms.*	B2b Enzymes Genetics Extinction speciation	C2a Atomic structure Ionic bonding Covalent bonding Polymers Nanotechnology Chemical analysis and instrumental methods. Qualitative and quantitative chemistry.	C2b Rates of reaction Collision theory Neutralisation Synthesis of chemical compound Electrochemistry	P2a P2b Distance/speed /time graphs. Forces Energy Momentum Electricity (current) Electricity (static) Radioactivity Life cycle of stars.		
10 Skills Covered	*Observation* *Measurement* *Design investigation* *Presenting data.* *Evaluation* *Researching* **AO1 (recall, select and communicate their knowledge and understanding of science)** **AO2 (apply skills, knowledge and understanding of science in practical and other contexts)**	Presenting data Analysis of data Drawing conclusions Handling data. Researching **AO1 (recall, select and communicate their knowledge and understanding of science)** **AO2 (apply skills, knowledge and understanding of science in practical and other contexts)**	Research Observation Planning Handling data Presenting data Analysis **AO1 (recall, select and communicate their knowledge and understanding of science)** **AO2 (apply skills, knowledge and understanding of science in practical and other contexts)** **AO3 (analyse and evaluate evidence, make reasoned judgements and draw conclusions based on evidence)**	Research Analysis Data handling Drawing conclusions **AO2 (apply skills, knowledge and understanding of science in practical and other contexts)** **AO3 (analyse and evaluate evidence, make reasoned judgements and draw conclusions based on evidence)**	Observation Planning measurements Designing and investigation Presenting data Drawing conclusions Evaluation Analysis Handling data **AO1 (recall, select and communicate their knowledge and understanding of science)** **AO2 (apply skills, knowledge and understanding of science in practical and other contexts)** **AO3 (analyse and evaluate evidence, make reasoned judgements and draw conclusions**	Year 11 controlled assessment **AO1 (recall, select and communicate their knowledge and understanding of science)** **AO2 (apply skills, knowledge and understanding of science in practical and other contexts)** **AO3 (analyse and evaluate evidence, make reasoned judgements and draw conclusions based on evidence)**	

					based on evidence)		
Theme/ Focus/ Content	*B1a* *Diet and metabolic rate.* *Fighting disease.* *Nervous system* *Hormones* *Drugs*	B1b Competition and environmental change Pyramids of biomass Carbon cycle Reproduction Genetic engineering Evolution.	C1a Atoms and elements Periodic table Balancing equations Limestone Metal and their alloys Crude oil	C1b Hydrocarbons Alkanes and alkenes Emulsions Earth structure Plate tectonics Evolution of the atmosphere	P1a P1b Kinetic theory Conduction convection radiation Specific heat capacity Sankey diagrams Cost of electricity Renewable Non-renewable resources. National grid Waves Origins of the universe.	TBC as shelf life is one year and will be released in May 2015	
9 Skills Covered	*Observation* *Measurement* *Design investigation* *Presenting data.* *Evaluation* *Researching*	Presenting data Analysis of data Drawing conclusions Handling data. Researching	Research Observation Planning Handling data Presenting data Analysis	Research Analysis Data handling Drawing conclusions	Observation Planning measurements Designing and investigation Presenting data Drawing conclusions Evaluation Analysis Handling data	Presenting data Drawing conclusions Evaluation Analysis Handling data	
Theme/ Focus/ Content	B1a Diet and metabolic rate. Fighting disease. Nervous system Hormones Drugs	B1b Competition and environmental change Pyramids of biomass Carbon cycle Reproduction Genetic engineering Evolution.	C1a Atoms and elements Periodic table Balancing equations Limestone Metal and their alloys Crude oil	C1b Hydrocarbons Alkanes and alkenes Emulsions Earth structure Plate tectonics Evolution of the atmosphere	P1a Kinetic theory Conduction convection radiation Specific heat capacity Sankey diagrams Cost of electricity	P1b Renewable Non-renewable resources. National grid Waves Origins of the universe.	

8 Skills Covered	Planning an investigation Making accurate observations Making measurements Presenting data Analysis Drawing conclusions evaluation	Planning an investigation Making accurate observations Making measurements Presenting data Analysis Drawing conclusions evaluation	Planning an investigation Making accurate observations Presenting data Analysis Drawing Conclusions Evaluation	Planning an investigation Making accurate observations Presenting data Analysis Drawing Conclusions Evaluation	Making accurate observations Presenting data Analysis Drawing conclusions Evaluations Research	Making accurate observations Presenting data Analysis Drawing conclusions Evaluations Research	
Theme/ Focus/ Content	Introduction to science Work and moments Forces and motion magnets	Waves Pressure Space Pulleys and levers Change in systems	Atoms, elements and compounds The periodic table Rock cycle	Energetics Earth and atmosphere	Healthy diet and the digestive system Gas exchange and smoking Drugs	Photosynthesis Genetics	
7 Skills Covered	Planning an investigation Making accurate observations Presenting data Analysis Drawing Conclusions Evaluation	Planning an investigation Making accurate observations Presenting data Analysis Drawing Conclusions Evaluation	Planning an investigation Making accurate observations Making measurements Presenting data Analysis Drawing conclusions evaluation	Planning an investigation Making accurate observations Making measurements Presenting data Analysis Drawing conclusions evaluation	Making accurate observations Presenting data Analysis Drawing conclusions Evaluations Research	Making accurate observations Presenting data Analysis Drawing conclusions Evaluations Research	
Theme/ Focus/ Content	Introduction to science Particle nature of matter Pure and impure substances	Chemical reactions Materials and the reactivity series	Physics Energy and energy transfers Forces Electricity	Physical changes Conduction, convection and radiation Particle radiation model	Cells Skeletal and muscular systems	Reproduction Relationships in an ecosystem	