Curriculum Map

Subject: **Science** **Year Group: 10**

Time Period	Autumn Term	Spring Term	Summer Term
Content	Cells and Respiration Stem cells and Transport Digestion Periodic Table Covalent Boning Ionic bonding Group 1 and Group 7 Metals and the reactivity series Matter Radioactivity Energy	Circulation Plant tissues, organs and Photosynthesis Electrolysis Energy stores and transfers Electricity	Communicable diseases Non-communicable diseases Nervous system and Endocrine system Quantitative Chemistry Energy Changes Rates of Reaction Electricity Forces
Skills	Predicting, making inferences and describing relationships Use of scientific terms Organisation of ideas and information Identifying main ideas, events and supporting details Application of working scientifically	Predicting, making inferences and describing relationships Use of scientific terms Organisation of ideas and information Identifying main ideas, events and supporting details Application of working scientifically	Predicting, making inferences and describing relationships Use of scientific terms Organisation of ideas and information Identifying main ideas, events and supporting details Application of working scientifically
Key Questions	What are the organelles in cells? How are cells specialised? How can we use microscopes to see cells? What is respiration? What is anaerobic respiration? What are the organs in our digestive system? How are large molecules broken down? How do we test food? How are the elements arranged on the periodic table?	What are the main structures in the Heart? What is the difference between the types of blood vessels? What are the organs in plants? What is photosynthesis? How does water move through the plant? What is electrolysis? How can we use electrolysis to	What makes us ill? How can we prevent infections? How do we treat diseases and their symptoms? How are drugs developed? How can use our diet and lifestyle to keep us healthy? How do our nerves and hormones work to keep our bodies in balance?

	How do atoms bond together? What are the trends and patterns in group 1 and Group 7? Which are the most reactive metals? How can metals be displaced from ores? How can we calculate the energy needed to heat an object? What is meant by thermal conductivity? What are the 3 types of Radiation? What is Half life?	separate molten and aqueous solutions? What are the main energy stores? How is energy transferred? What is a series circuit? What is a parallel circuit? How can we calculate resistance?	What is electrolysis? How can we use electrolysis to separate molten and aqueous solutions? What is a mole? How can we calculate formula mass? What are endothermic and exothermic reactions? How can we draw graphs to show which is which? How do concentration, surface area and temperature change the rate of reactions? What is Alternating current? How can we wire a plug? How do we represent a force? What do we mean by a resultant force? How do we work out the effect of a resultant force acting on an object? What do we mean by momentum? How is momentum and forces linked?
Assessment week and content	Cells W/C 16th October Stem Cells W/C 4th December Periodic Table W/C 25th September Covalent bonding W/C 16th October Ionic bonding W/C 18th December Matter W/C 9th October Radioactivity W/C 20th November	Digestion W/C 8th January Circulation W/C 12th February Plants and Photosynthesis W/C 25th March Group 1 and Group 7 W/C 15th January Metals and reactivity W/C 26th February Electrolysis 25th March Energy W/C 15th January Energy sources and transfers W/C 4th March	Communicable diseases W/C 20th May Non-communicable Diseases W/C 24th June Nervous system W/C 15th July Quantitative W/C 20th May Energy Changes W/C 1st July Electricity W/C 17th June Forces W/C 15th July

Lemsford Lane, Welwyn Garden City, Hertfordshire AL8 6YR
Tel: 01707 321755 • admin@stanborough.herts.sch.uk • www.stanborough.herts.sch.uk • Company No: 07900439