**Science 9 Final Exam Topics**

The following is an abbreviated list of what is on the final exam:

Scientific Method

* Dependent vs independent variables
* What makes a good experiment
* Hypothesis vs theory

Bunsen Burner

* Safety
* How to use the Bunsen burner

Biology

* Parts of the cell
* DNA and structure
* Mitosis
* Meiosis
* Asexual reproduction – types, pros and cons
* Sexual reproduction – how, pros and cons
* Human reproduction – chromosomes, path of sperm and egg, structure of humans

Physics

Static Electricity

* Types and how it works

Current Electricity

* Current, voltage and resistance – definitions, symbols and units
* Circuit diagrams
* V=IR calculations
* Trouble shooting a circuit
* Parallel vs series

Ecology

* Biotic and abiotic factors
* The four spheres
* Levels of organization
* Trophic levels (primary producer…)
* Photosynthesis equation and cellular respiration equation
* Food webs
* Basic understanding of nutrient cycles
  + Carbon, Nitrogen and Phosphorus
* The Greenhouse Effect and climate change

Chemistry

* KMT
* Naming elements
* How the Periodic Table is laid out (periods, families, mass, electrons, metals, etc.)
* How to find protons, electrons and neutrons for atoms and ions
* Bohr diagrams and valence electrons
* Mendeleev – how he organized the table
* Building compounds
* Naming compounds and finding formulas
* How many atoms are in a compound
* Physical changes vs chemical changes