Science 9 Final Exam 2023

Section 1: Multiple Choice (10 questions per unit)

* **Chemistry** (WHMIS, matter, types of elements and properties, periodic table, subatomic particles, Bohr diagrams, valence shell/ electrons, compounds (covalent vs. ionic, naming, writing formulas), multivalent metals, polyatomic ions
* **Reproduction** (cells, mitosis, meiosis, sexual reproduction, asexual reproduction, advantages/ disadvantages of different reproduction types, human development)
* **Earth’s spheres** – 4 spheres, biotic vs. abiotic factors, water and nitrogen and carbon cycle, earth’s atmosphere, food chains and webs, climate change, Faro trip details
* **Electricity** – types of energy, ways to generate electrical energy, static electricity, law of electric charge, electrical circuits, resistance, circuit diagrams, series vs. parallel circuits, Ohm’s law, challenges around renewable vs. non-renewable energy

Section 2 : Birds

* 25 bird calls
* Minimum of 2 from each week
* Includes mostly birds that we have encountered/ find interesting

Section 3: Compound naming and writing

* 20 ionic and covalent compounds – write the name or formula using the table and other compound details (ionic/ covalent, polyatomic ion, multivalent metal)

Section 4: Written

* Design an experiment to test a scenario that I give you related to SASE; identify variables (manipulated, responding, control), write a hypothesis and prediction
* Create a graph for a set of data you are given and interpret it
* Make 5 meaningful connections to concepts we have learned in science and topics we have explored in social studies \*\*\*prepare in advance

How to study

* Review your bird calls
* Practice writing and naming compounds
* Review old quizzes/ worksheets
* Look at the study guide
* Prepare for the written section
* Make a cheat sheet