**2022-2023 Science 9 Final Exam (Semester 1)**

**Date:**

* Wednesday, July 25 (Lab Final)
* Thursday, July 26 (Written Final)

**What you need to bring:**

* Pencil/eraser
* Calculator

**Topics:**

|  |  |
| --- | --- |
| **Lab Safety**  **Scientific Method** | * General Safety Rules * General Safety Equipment * WHMIS * General Lab Equipment * Scientific Method * Quantitative and Qualitative Observations * Controlled Experiments * Independent and Dependent Variable |
| **Biology** | * Cell Theory * Organelles * DNA & chromosomes * DNA Model * Asexual Reproduction - Types * Binary Fission * Stages of Mitosis * Sexual Reproduction * Gametes and Fertilization * Stages of Meiosis * Human Embryonic Development |
| **Chemistry** | * Matter * Pure Substance vs. Mixtures * Properties of matter * Physical and Chemical Change * Subatomic Particles * Periodic Table * Properties * Bohr Models * Ions * Ionic and Covalent Compounds (Naming and Writing Formulas) * Multivalent Polyatomic Compounds (Naming and Writing Formulas) |
| **Physics** | * Types of Energy * Static Electricity * Law of Electric Charge * Electrochemical Cells * Voltage, Current. Resistance * Insulators vs. Conductors * Circuit Diagrams * Ohm’s Law * Series vs. Parallel Circuits * Power * Generating Electrical Energy |
| **Earth Science** | * Living vs Non-living organisms * Limiting factors, carrying capacity * Earth’s spheres: Atmosphere, Hydrosphere, Biosphere, Lithosphere * Solar Energy, Winds, Ocean currents * Types of Organisms * Food chains, Food webs, Energy Pyramids * Water cycle * Carbon cycle * Nitrogen cycle * Phosphorus cycle |

**Things you can use to study:**

* Your own study guides!
* Notes Packages
* Worksheets
* Practice Tests
* Past tests (view during flex or by appointment)

