**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:**

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| **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)
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| **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
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**Things you can use to study:**

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

