**SNC2P: Final Exam Review**

You will be allowed to bring up to FOUR handwritten (by yourself) reference sheets into the final exam (double sided). Use the following topics to guide your reference sheets, you`ll notice there are some concepts repeated between the multiple choice/matching and short answer topics-only include what you need to! You will be provided with a periodic table for the exam as well. Use your notes as your primary study resource and refer to your textbook for further clarification.

**Chemistry-multiple choice/matching**:

* Physical vs. chemical **properties**-be able to identify a situation as one or the other
* Physical vs. chemical **reactions**-be able to identify a situation as one or the other
* Ionic compounds-how are they formed? What do metals tend to do, what do non-metals tend to do? Where are metals/non-metals located on the periodic table?
* What is an ION? How does an atom become a positive ion or negative ion?
* Types of chemical reactions (decomposition, synthesis, single displacement, double displacement)-given a reaction-identify it as one of these
* Parts of an equation-where are the reactants located? The products?
* Balanced chemical equations-be able to identify if an equation is balanced or unbalanced.
* Properties of acids & bases, neutral substances, litmus paper, pH scale

**Chemistry-Short Answer:**

* Ionic Bonding: Drawing Lewis dot diagrams using information from a periodic table, determining Ionic Charge, writing chemical formula, determining the chemical name
* Given a description-write a word equation, classify word equation as synthesis, decomposition, single-displacement or double-displacement
* Law of Conservation of Mass-predicting mass of reactants or products
* Balancing an equation
* Given an equation-classify it
* Acids & Bases-practical applications

**Physics-multiple choice/matching**:

* Electromagnetic spectrum-parts-know general location of gamma and radio waves & how their wavelengths compare, visible light-how much of it is this?
* Chemiluminescence , incandescence, bioluminescence, fluorescence
* Transparent vs translucent vs. opaque
* Reflection vs. absorption vs. transmission
* Angle of reflection vs. angle of incidence
* Primary light colours, what happens when 2 primary colours are combined?
* Number of focal points of a lens?
* Refraction-what is it? How is the angle of refraction measured?

**Physics-Short Answer:**

* Why do you see certain colours? (Think-reflection, absorption)
* Given a diagram with a labelled incident and refracted ray identify the relationship
* Speed of light through different mediums
* Determine location of image in a PLANE & CONCAVE mirror & its characteristics (SALT) using LIGHT rays

**Biology-multiple choice/matching:**

* Cell organelles & their functions, What is DNA
* Cell Cycle (interphase, mitosis, cytokinesis)-what is occurring in each phase? What does it look like?
* What is diffusion?
* Function of the respiratory (+ parts), digestive (+ parts in proper order) & circulatory systems
* What is a tissue + examples, what is an organ + examples, what is an organ system + examples
* What is cancer? How can it develop? Benign vs. malignant tumour?

**Biology**-**Short Answer**:

* Why do cells divide?
* Why is cell specialization important?
* Main function of digestive, respiratory & circulatory organ systems-be able to describe using proper scientific terminology, and how any two organ systems interact with each other
* Medical Imaging Technology-know ONE well-identify what it is used to diagnose

**Climate Change-multiple choice/matching:**

* What is climate? Solar Energy? Deforestation? Carbon Sink? Aquatic vs. terrestrial?
* Gases: naturally occurring greenhouse gas(es), what gas is produced in gut of cows, sheep, etc.,
* Greenhouse gases-how are they increased? Anthropogenic Greenhouse Effect
* Atmosphere-purpose
* Hydrosphere-what is it?
* Effects of climate change in aquatic ecosystems (do you know the difference between aquatic and terrestrial environments?)
* What is desertification?
* How is data on how climate change affects deep ocean waters collected?

**Climate Change-Short Answer:**

* Climate vs. Weather
* How are humans affecting earth’s climate? How are humans trying to decrease our impact on earth?
* Identify the issues with the current warming trend on earth
* Identify a career from this course and explain how one of the units studied this semester will benefit someone in that career.