

## **Sci 9 Exam review (aka: what you should probably focus your studies on)**

Vocab from “scientific method” (ex: variable, hypothesis, etc)

Law vs Theory

Be able to identify the independent/dependent variables and control in an experiment

Mixtures and pure substances: How can you tell?

What is an alloy? (know ones like brass, bronze. What is metallurgy?)

Physical and chemical properties: What are some?  
Clues it's a physical/chem change

Density: What is it? Calculate it.

Physical change: names of changing of states of matter (ie: deposition, evaporation)

KMT

Prokaryotic vs Eukaryotic cells

Organelles and their function

What is a gene?

What are proteins made of? What is DNA made of? What are carbohydrates made of?

Cells: somatic vs. gametes (n or 2n? Where are they found?)

What is the “goal” of mitosis? Meiosis? (hint: what gets separated? Homologous chromosomes or sister chromatids?)

When is DNA replication take place? (which part of the cell cycle)

Know parts of the cell cycle.

What is cancer? (what causes it? Malignant vs benign tumors)

External vs. Internal fertilization

What are stem cells?

Which particles have mass in an atom? How do you get total mass of an atom?

Periods vs Families/Groups on the periodic table

Know which elements are metalloids (at least recognize them from a list)

Early Models of an atom: basic features of each (which scientist)

Valence electrons.

Know how to read periodic table

# of protons/neutrons/electrons from standard notation

name and formula of ionic compounds

three ways to get a static charge

insulator vs conductor (why won't aluminum attract confetti!?)

Ohms Law

Circuit diagrams

Reading an ammeter/voltmeter