Science 10 Exam Review Topics Covered

Physics Unit

Section 9.2 Measurement and Calculations pg 344-349

- Certainty and Significant Digits
- Certainty Rule for Multiplying and Dividing
- Precision Rule for Adding and Subtracting
- Converting Units

Section 9.5 Relating Speed to Distance and Time pg 354-359

- Average Speed, Instantaneous Speed, Constant Speed
- Word Problems involving speed

Section 9.7 Distance – Time Graphs pg 362-365

- interpreting them
- how slope and speed are related
- drawing a graph given data
- calculating slope given data or graph

Section 10.3 Defining Acceleration pg 384-389

- Constant Acceleration, Average Acceleration, Instantaneous Acceleration
- Solving word problems involving acceleration

Section 10.4 Speed-Time Graphs for Acceleration pg 390- 393

- The line on a velocity vs time graph represents acceleration.
- To find acceleration from a graph find the slope of the line.
- To find distance from a graph calculate the area under the graph.

Electricity Unit

Section 9.2 The electrical nature of matter pg 272-273

- Electrostatics
- Law of Electric Charges

Section 9.3 Charging by Friction pg 274-275

- How objects become charged by friction?
- What charges the objects receive?
- Example
- The electrostatics series.

Section 9.5 Transferring charge through contact pg 278-279

- How it happens?
- What charges the objects receive?
- Example

Section 9.6 Insulators and Conductors pg 280-281

- What are they?
- Examples of each?

Section 9.7 Discharging Electrically Charged Objects pg 282-283

- What is discharging?
- Methods used to discharge.

Section 9.8 Induction pg 285-287

- How objects become charged by induction?
- What charges the objects receive?
- Example

Section 10.2 Electricity and Electric Circuits

- Parts of an electric circuit
- How electricity flows through a circuit

Section 10.3 Electric Potential (Voltage) pg 302-303

- What is voltage?
- The symbol and units for voltage.
- The relationship it has with current and resistance

Section 10.7 Cells in Series and Parallel
- The difference between series and Parallel
- How to draw in series and parallel

Section 10.9 Electric Current pg 314-315
- What is electric current?
- The symbol and units for current.
- The relationship it has with voltage and resistance.

Section 10.10 Electrical Resistance and Ohms Law pg 316-317
- What is resistance?
- The symbol and units for resistance.
- Which circuit series or parallel provides the least resistance?
- The relationship it has with current and voltage.
- What is Ohms Law
- Be able to complete word problems with Ohms Law

Chemistry Unit

Section 5.1Chemicals and Chemical Change pg 172-175
- Classifying substances as: pure substances, mixtures, elements, molecules or compounds
- Properties of matter (physical vs chemical properties and changes)

Section 5.2 Hazardous Household Chemicals pg 176-179
- WHMIS/HHPS symbols

Section 5.5 Elements and the Periodic Table pg 184-187
- Arrangement of the periodic table
- Chemical Families
- Atomic Structure (protons, neutrons, electrons)
- Bohr Diagrams of elements and ions
- Ions

Section 5.6 How Elements form compounds pg 188-189
Section 5.8 Ionic Compounds pg 192-195
- How they form?
- The bonds involved.
- Writing formulas for ionic compounds
- Naming Ionic compounds
- Multivalent ionic compounds

Section 5.9 Polyatomic Compounds pg 196-198
- Writing formulas for polyatomic compounds
- Naming polyatomic compounds

Section 5.11 Molecular Compounds pg 201 – 204
- How they form?
- The bonds involved.
- Naming molecular compounds
- Writing formulas for molecular compounds

Section 6.1 Word Equations pg 218-219
- Writing word equations

Section 6.3 Conserving Mass pg 222-223
- The law of conservation of mass
- Conserving mass in chemical equations

Section 6.5 Balancing Chemical Equations pg 226-229

Section 6.6 Combustion pg 230-232
- The products of a complete combustion of a hydrocarbon
- The products of an incomplete combustion of a hydrocarbon

Section 6.7 Synthesis and Decomposition pg 233-235
Section 6.10 Single and Double Replacement Reactions pg 240-241