

## **Chemistry – Review by Topic**

- Atomic structure
- Physical / chemical changes ( 5 clues)
- Periodic table patterns / families / BR diagrams
- Ions
- 3 compounds: ionic, polyatomic, molecular  
Names / formulas / how to recognize
- Conservation of Mass Law (math)
- Count atoms / balance reactions
- Recognize the 4 reactions types (plus neutralization & combustion)
- pH scale (where is acid / base & strongest)
- (2) Acids & Bases → naming, formulas, recognize

## **Physics – Review by Topic**

- Properties of light
- Ways to produce light – also luminous vs. non-luminous
- Know how to draw proper ray diagrams
- Law of reflection
- Finding images in plane/convex/concave mirror
- How to find focal point of convex/concave mirror
- SALT characteristics
- Refraction – what is it? When will light towards/away from normal?
- 'n' – what is it? Be able to calculate with it – 2 formulas to use
- T.I.R. – what is it? Explain examples. Conditions for it to happen?
- Lens – Finding image through convex lens
- Thin lens equations. Be able to solve problems with them
- Human eye – parts & compare to camera
- Near/far sighted → describe vision and corrective lens

## **Biology – Review by Topic**

- Cell theory, plant/animal, prokaryote/eukaryote, organelles
- Reasons for cell division (3)
- Cycle cells = Mitosis (PMAT) + Cytokinesis + Interphase

- Cancer – what’s gone wrong / preventing / diagnostics / treating
- Stems cells & cell differentiation (specialization) → examples
- Hierarchy in living things
- 4 animal tissue types & 3 plant tissue types
- 3 main animal organ systems – parts, function, diseases etc. (know those note templates)
- Interaction of systems
- XS of leaf – parts and what they do.

### **Climate Change – Review by Topic**

- Climate vs. Weather
- Greenhouses Gases – know them, formulas & CO<sub>2</sub> equivalence
- 2 carbon sinks – what do they do? Why important? Why are they ‘sinks’?
- Proxy records – what are they? Understand how they work.
- Antarctica – why is it important in study of climate? How do you study climate at the Antarctic?
- Albedo
- Feedback loops – Positive / negative & examples