Year 11 Science Half-term Revision

Over half-term, your focus is to **embed the core knowledge** you will be assessed on during your mocks in AUT2. This will cover a **full paper 1 for biology, chemistry and physics**. There will be an **additional topic of 'forces' in the physics paper.**

Mocks topics

Biology	Chemistry	Physics
Paper 1: • Cell biology • Organisation • Infection and response • Photosynthesis • Respiration	**Paper 1:** • Atomic structure and the periodic table • Bonding, structure and the properties of matter • Quantitative chemistry • Chemical changes • Energy changes	**Paper 1:** • Energy • Electricity • Particle model of matter • Atomic structure Forces

Tasks

1) You must complete **800 points** of Tassomai over the two weeks
2) Create revision cards answering the following core questions, using **Tassomai** or **BBC bitesize**

Key resources

https://www.bbc.co.uk/bitesize/examspecs/z8r997h
https://www.youtube.com/@Freesciencelessons

Biology	Chemistry	Physics
1) State 3 extra organelles a plant cell has compared to an animal cell. 2) Order from smallest to largest: organisms, tissue, cell, organ, organ system 3) Describe diffusion, active transport and osmosis 4) Name 1 example of a specialised cell and its adaptations 5) Define pathogen. State the 4 types of pathogens 6) Describe what a vaccine contains. 7) Equation for photosynthesis 8) What factors affect the rate of respiration? 9) Equation for respiration 10) What is the difference between aerobic and anaerobic respiration?	**1)** What are the subatomic particles in an atom. State their charge and mass **2)** Describe the plum pudding model and gold foil experiment **3)** Draw the electronic structure of Na and state what the group and period number tell you. **4)** Describe and explain the reactivity of the alkali metals as you go down the group. **5)** State what ionic bonding occurs between 6) Explain why NaCl has a high melting point 7) Calculate the relative formula mass of CO_2 8) Define exothermic and endothermic.	**1)** State 4 energy stores **2)** State 3 energy transfers **3)** State the equation to calculate efficiency **4)** Describe the movement of particles in a solid, liquid and gas **5)** State the 3 types of radiation **6)** Draw the symbol for a cell and battery **7)** Define potential difference **8)** Describe how increasing the number of components affects current **9)** Describe an experiment used to calculate spring constant **10)** Describe the difference between mass and weight