

## 2024 Y11 Mock Exam Preparation: *Triple Science*

### Exam(s):

Exam 1: *Biology 100 marks (105 minutes)*

Exam 2: *Chemistry 100 marks (105 minutes)*

Exam 3: *Physics 100 marks (105 minutes)*

| Revision Topic List - Biology        |                            |
|--------------------------------------|----------------------------|
| Content                              | Skills                     |
| Enzyme activity                      | Describing data in graphs  |
| Osmosis                              | Magnification calculations |
| Microscopes                          | Inverse square Law         |
| Cell structure                       | Punnett Squares            |
| Asexual Reproduction                 |                            |
| DNA structure                        |                            |
| DNA extraction                       |                            |
| Work of Mendel                       |                            |
| Human Genome Project                 |                            |
| Human Evolution/Stone tools          |                            |
| Causes of stomach ulcers             |                            |
| Investigating antibiotics            |                            |
| Lytic Cycle of a virus*              |                            |
| Root hair cells                      |                            |
| Adaptations of a leaf                |                            |
| Investigating rate of photosynthesis |                            |
| Plant hormones and phototropism      |                            |
| Transpiration                        |                            |
| Hormones and menstrual cycle         |                            |
| Contraception                        |                            |

|                                      |  |
|--------------------------------------|--|
| Assistive Reproductive Technologies* |  |
| Glucoregulation                      |  |

| <b>Revision Topic List - Chemistry</b> |                                          |
|----------------------------------------|------------------------------------------|
| <b>Content</b>                         | <b>Skills</b>                            |
| Rates of Reaction                      | Balancing Equations                      |
| Alkali Metals                          | Deducing Molecular Formula               |
| Isotopes                               | Calculating Energy Changes for Reactions |
| Homologous series                      | Explaining Boiling Points                |
| Combustion*                            | Redox Reactions                          |
| Halogens*                              | Calculating RAM                          |
| Reaction Profile Diagrams              |                                          |
| Endothermic Reactions                  |                                          |
| Explaining Boiling Points              |                                          |
| Fractional Distillation                |                                          |

| <b>Revision Topic List - Physics</b>        |                                    |
|---------------------------------------------|------------------------------------|
| <b>Content</b>                              | <b>Skills</b>                      |
| Charges and electric fields                 | Acceleration equations             |
| Current and resistance in parallel circuits | Momentum and force calculations    |
| Distance time graphs                        | Half life calculations             |
| Factors affecting collision force           | Magnetic flux density calculations |
| PET scanners                                | Moments calculations               |
| Radiotherapy                                | Work done calculations             |
| Irradiation and contamination               | GPE calculations                   |
| Half life                                   | Describing graphs                  |
| Magnetic field of the Earth                 |                                    |
| Fleming's left hand rule                    |                                    |
| Moments of levers and gears                 |                                    |
| Work done                                   |                                    |
| Efficiency of motors                        |                                    |
| Circuit diagrams                            |                                    |
| Potential difference                        |                                    |
| Centripetal force                           |                                    |
| Speed vs velocity                           |                                    |
| Conservation of momentum and energy*        |                                    |
| Ultraviolet waves                           |                                    |
| Transverse waves                            |                                    |
| SONAR*                                      |                                    |