## Biology Curriculum Plan

| Year | Term 1                             | Term 2                           | Term 3                        |
|------|------------------------------------|----------------------------------|-------------------------------|
|      | Organisms 1                        | Ecosystems & Energy 1            | Inheritance 1                 |
| 7    | Cell Structure                     | Food Chains & Webs               | Human Reproductive Systems    |
|      | Microscopes                        | Interdependence                  | Pregnancy & Birth             |
|      | Bacterial Cells                    | Predator/Prey Cycle              | Menstrual Cycle               |
|      | Role of Diffusion                  | Ecosystems vs habitat vs niche   | Plant Reproductive Systems    |
|      | Skeletal & Muscular Systems        | Biodiversity                     | Seed dispersal                |
|      |                                    | Pollination                      |                               |
|      |                                    | Bioaccumulation                  |                               |
|      | Organisms 2                        | Ecosystems & Energy 2            | Inheritance 2                 |
|      | Specialised cells/tissues/organs   | Respiration- Aerobic & Anaerobic | DNA, genes, chromosomes       |
|      | Gas Exchange System                | Photosynthesis                   | Development of DNA            |
|      | Effects of asthma/smoking on lungs |                                  | Species & Differences         |
| 8    | Digestive System                   |                                  | Variation                     |
|      | Healthy Diet/lifestyle             |                                  | Natural Selection & Evolution |
|      |                                    |                                  | Extinction & Fossils          |
|      |                                    |                                  |                               |

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|    | Cells                           | Organisation                    | Infection & Response        |
|----|---------------------------------|---------------------------------|-----------------------------|
| 9  | Cell Structure                  | Cells, tissues, organs          | Pathogens & Disease         |
|    | Investigating Cells- Microscopy | Digestion & Enzymes             | Human Defences              |
|    | Cell Division                   | Blood & Circulation             | Treating Diseases           |
|    | Cell Transport                  | Non-Communicable Disease        | Plant Disease               |
|    | DNA, genes, chromosomes         | Plant Transport                 | Drug Development            |
|    | Stem Cells                      |                                 |                             |
|    |                                 |                                 |                             |
| 10 | Bioenergetics                   | Homeostasis & Response          | <b>Inheritance</b>          |
|    | Photosynthesis                  | Homeostasis & Body Temperature  | Sexual/Asexual Reproduction |
|    | Rate of photosynthesis          | Nervous System                  | DNA & Protein Synthesis     |
|    | Aerobic Respiration             | The eye & brain                 | Patterns of Inheritance     |
|    | Anaerobic Respiration           | Endocrine System                | Variation & Evolution       |
|    | Metabolism                      | Blood Glucose & Diabetes        | Natural Selection           |
|    | Effects of exercise             | Hormones & Reproduction         | Selective Breeding          |
|    |                                 | Plant Hormones                  | Genetic Engineering         |
|    |                                 |                                 | Cloning                     |
| 11 | <b>Inheritance</b>              | Ecology                         | EXAM PERIOD                 |
|    | Sexual/Asexual Reproduction     | Classification                  |                             |
|    | DNA & Protein Synthesis         | Ecosystems                      |                             |
|    | Patterns of Inheritance         | Biotic/Abiotic Factors          |                             |
|    | Variation & Evolution           | Cycles- Carbon & Water          |                             |
|    | Natural Selection               | Disrupting Ecosystems           |                             |
|    | Selective Breeding              | Food Chains/Pyramids of Biomass |                             |
|    | Genetic Engineering             | Biodiversity                    |                             |
|    |                                 | Food security & biotechnlogy    |                             |