|  |  |  |
| --- | --- | --- |
| Lesson No | Revision guide  Pg No. | Lesson Title |
|  |  | **AUTUMN 1** |
| 1 | 11 | Eukaryotic and prokaryotic cells + Admin |
| 2 | 11 | Animal and plant cells |
| 3 | 12-13 | Microscopy and magnification |
| 4 | 13 | **RP Microscopy – using light microscopes to observe, draw and label cells** |
| 5 |  | **Microscopy – RP exam qs** |
| 6 | 14 | Specialisation in animal and plant cells |
| 7 | 14-15 | Chromosomes and cell differentiation |
| 8 |  | Revision |
| 9 |  |  |
|  |  |  |
| 10 | 15 | Cell division – Mitosis and cell cycle |
| 11 | 19 | Stem cells |
| 12 | 20 | Diffusion |
| 13 | 23-25 | Exchanging materials |
| 14 |  |  |
|  |  | **Autumn 2** |
| 15 | 21 | Osmosis |
| 16 | 21 | **RP Osmosis** |
| 17 |  | **Osmosis – RP exam qs** |
| 18 | 22 |  |
| 19 |  |  |
| 20 |  | Active transport |
|  |  |  |
| 21 | 27 | Organisational Hierarchy |
| 22 |  |  |
| 23 | 31 | The human digestive system |
| 24 | 30 | Human digestive enzymes |
| 25 | 32 | **RP Food Tests-Sugars, starch, protein lipids** |
| 26 |  | **Food tests –RP exam qs** |
|  |  |  |
| 27 | 26 | Catalysts and enzymes |
| 28 | 26 | Factors affecting enzymes |
| 29 | 29 | **RP Enzymes – the effect of pH on the rate of amylase** |
| 30 |  | **Enzymes – RP exam qs** |
| 31 |  |  |
| 32 |  |  |
| 33 |  |  |
|  |  | **Spring 1** |
| 34 | 34 | The heart |
| 35 | 36 | The blood |
| 36 | 35 | The blood vessels |
| 37 | 37-38 | Cardiovascular disease |
| 38 |  | **Catch up lesson/exam practice** |

|  |  |  |
| --- | --- | --- |
| 1 | 4.2.2.2 | The heart |
| 2 | 4.2.2.3 | The blood |
| 3 | 4.2.2.2 | The blood vessels |
| 4 | 4.2.2.4 | Cardiovascular disease |
| 5 | 4.2.2.5 | Breathing and gas exchange |
| 6 | 4.2.3.1 | Tissues and organs in plants |
| 7 | 4.2.3.1 | Transport systems in plants(Translocation) |
| 8 | 4.2.3.2 | Evaporation and transpiration |
| 9 | 4.2.3.2 | Factors affecting transpiration |
| 10 | 4.3.1.1 | Health and disease |
| 11 | 4.3.1.1 | Communicable diseases - spread of pathogens, preventing the spread |
| 12 | 4.3.1.2  4.3.1.3 | Diseases caused by viruses and bacteria |
| 13 | 4.3.1.4  4.3.1.5 | Diseases caused by fungi and protists |
| 14 |  | **Catch up lesson** |
|  |  | **Spring 2** |
| 15 | 4.3.1.6 | Human defence responses |
| 16 | 4.3.1.7 | Vaccination |
| 17 | 4.3.1.8 | Antibiotics and painkillers |
| 18 | 4.3.1.9 | Discovering drugs & Developing drugs |
| 19 |  | **Revision** |
| 20 |  | **Revision** |
| 21 |  |  |
| 22 | 4.2.2.4 | Non-communicable diseases |
| 23 | 4.2.2.7 | Cancer |
| 24 | 4.2.2.6 | Smoking , Alcohol and other carcinogens and the risk of disease |
|  | 4.2.2.6 | Diet, Exercise and health |
|  |  | **Catch up lesson** |
| 25 | 4.1.1.6 | Growing bacteria in the lab |
| 26 |  |  |
| 27 |  | **RP Microbiology – the effect of antiseptics/antibiotics on bacterial growth using agar plates** |
| 28 |  | **RP Microbiology –exam qs** |
| 29 | 4.3.2.1 | Making monoclonal antibodies |
| 30 | 4.3.2.2 | Uses of monoclonal antibodies |
| 31 | 4.3.3.1  4.3.3.2 | Plant diseases and Plant defence response |
| 32 |  | **Catch up lesson** |
| 33 | 4.4.1.1 | Photosynthesis |
| 34 | 4.4.1.2 | The rate of photosynthesis |
| 35 |  | **RP Photosynthesis – the effect of light intensity on rate of photosynthesis** |
| 36 |  | **RP Photosynthesis exam qs** |
| 37 | 4.4.1.3 | Uses of glucose and making the most of photosynthesis |
| 38 | 4.4.2.1 | **Revision** |
| 39 | 4.4.2.1 |  |
| 40 | 4.4.2.1 | Aerobic respiration |
|  |  | **Summer 1** |
| 41 | 4.4.2.1 | The response to exercise |
| 42 | 4.4.2.3 | Anaerobic respiration |
| 43 |  | Comparing Aerobic and Anaerobic respiration |
| 44 |  | Metabolism and the liver |
| 45 |  |  |
| 46 | 4.5.1 | Principles of homeostasis |
| 47 | 4.5.2.1 | The structure and function of the human nervous system |
| 48 |  | Catch up lesson |
| 49 | 4.5.1.1 | Reflex actions and synapses |
| 50 |  | **RP Reaction Time – the effect of a factor on human reaction time** |
| 51 |  | RP exam qs |
| 52 | 4.5.2.2 | The Brain |
| 53 | 4.5.2.3 | The Eye |
| 54 | 4.5.2.3 | Correcting vision defects |
| 55 | 4.5.3.1 | Principles of hormonal control |
| 56 | 4.5.2.4 | Controlling body temperature (can teach as lesson 2 in the topic) |
| 57 | 4.5.3.2 | The control of blood glucose levels |
| 58 | 4.5.3.2 | Treating diabetes |
| 59 | 4.5.3.7 | The role of negative feedback-Adrenaline and Thyroxine |
| 60 | 4.5.3.4 | Human reproduction and Hormones and the menstrual cycle |
| 61 |  | **Revision** |
| 62 |  | **Revision** |
| 63 |  |  |
| 64 |  |  |
|  |  | **Summer 2** |
| 65 | 4.5.3.5 | The artificial control of fertility (Contraception) |
| 66 | 4.5.3.6 | Infertility treatments |
| 67 | 4.5.4.1 | Plant hormones and responses |
| 68 | 4.5.4.2 | Using plant hormones |
| 69 |  |  |
| 70 |  | **RP Plant Responses – the effect of light/gravity on the growth of germinated seedlings** |
| 71 |  | RP Plant Responses exam qs |
| 72 | 4.5.3.3 | Removing waste products |
| 73 | 4.5.3.3 | The kidneys and urine formation |
| 74 | 4.5.3.3 | Dialysis – an artificial kidney |
| 75 | 4.5.3.3 | Kidney transplants |
| 76 |  | **Catch up lesson** |
| 77 |  | **Catch up lesson** |