My revision schedule for IGCSE Biology						
Paper 2 Multiple choice 22 May 2018						
Paper 4 Extended 22 May 2018						
Paper 6 Alternative to practical 08 May 2018						
1, 2 Characteristics, classification and organisation.	week 1	week beginning	08-Jan	At the start....	Revised this.....	I know this.....
1.1 Characteristics of living organisms. Define the terms of MRS GREN				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
1.2 Concept and use of a classification system. Use and explain the classification system used to name organisms.				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
1.3 Features of organisms. List the cell parts. Identify the main features of: 5 kingdoms, vertebrates, arthropods, ferns, flowering plants				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
1.4 Dichotomous keys. Construction and use				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
2.1 Cell structure and organisation. Parts of the cell and their functions, differences between plant and animal cells				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
2.2 Levels of organisation. Specialised cells, tissues, organs, organ systems for plants and animals				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
2.3 Size of specimens. Magnification calculations and relative sizes in mm and μm				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
3, 4 Movement and biological molecules	week 2	week beginning	15-Jan	At the start....	Revised this.....	I know this.....
3.1 Diffusion. Definition, importance of diffusion for living cells, factors that influence rate of diffusion				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
3.2 Osmosis. Definition, water potential, effect of osmosis on plant cells and tissues, terms plasmolysis, turgid, turgor pressure, flaccid				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
3.3 Active transport. Definition, importance to cells				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
4.1 Biological molecules. Chemical elements in protein, fat, carbohydrates, DNA, food tests, DNA structure, protein structure				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
5. Enzymes	week 3	week beginning	22-Jan	At the start....	Revised this.....	I know this.....
5. Enzymes definition, importance, enzyme action, effect of pH and temperature on activity, denaturation				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
6. Plant nutrition	Week 4	week beginning	29-Jan	At the start....	Revised this.....	I know this.....
6.1 Photosynthesis. Definition, equation (word and symbol), importance of chlorophyll, factors affecting rate, limiting factors, enriched environments, use of hydrogen carbonate indicator to measure rate				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
6.2 Leaf structure. Deify and label parts of the leaf, explain how leaf is adapted for photosynthesis				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
6.3 Mineral requirements. The need for nitrogen and magnesium				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹

7. Human nutrition	week 5	week beginning	05-Feb	At the start....	Revised this.....	I know this.....
7.1 Diet. Balanced diet, dietary needs, malnutrition, sources of nutrients, deficiencies				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
7.2 Alimentary canal. Definitions of ingestion, digestion (mechanical and chemical), absorption, assimilation, egestion. Diarrhoea, treatment and cholera. Parts and function of the digestive system				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
7.3 Mechanical digestion. Names of teeth, what they do and how to look after them				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
7.4 Chemical digestion. Role of enzymes, where they are produced and stored. Breakdown of protein, starch and fat. Function of hydrochloric acid and bile				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
7.5 Absorption Role of small intestine and colon, structure and purpose of villi, role of capillaries and lacteals in villi				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
8. Transport in plants	week 6	week beginning	12-Feb	At the start....	Revised this.....	I know this.....
8.1 Transport in plants. Function and position of xylem and phloem				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
8.2 Water uptake. Root hair cells and their function, pathway of water through the plant				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
8.3 Transpiration. Definition and mechanism of transpiration, effect of temperature and humidity on rate of transpiration, wilting				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
8.4 Translocation. Define translocation, sources and sinks of sucrose and amino acids				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
9. Transport in animals	week 7	week beginning	19-Feb	At the start....	Revised this.....	I know this.....
9.1 Transport in animals. Define the circulatory system, describe single and double circulation, explain the advantages of double circulation				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
9.2 Heart. Name heart structures including valves, explain the wall thickness and role of septum, describe flow of blood through the heart, state how the heart can be monitored, describe and explain the effect of exercise and diet, describe coronary heart disease and how it can be treated				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
9.3 Blood and lymphatic vessels. Blood vessel structure, name main vessels, parts and role of lymphatic system				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
9.4 Blood. Components of blood and their functions, transfer of materials between blood and cells				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
10. Diseases and immunity	week 8	week beginning	26-Feb	At the start....	Revised this.....	I know this.....
10. Diseases and immunity. Pathogens, transmission, barriers, hygiene, waste disposal, sewage treatment, antibodies, vaccination, active immunity, passive immunity, memory cells, type 1 diabetes				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
11. Gas exchange in humans **12. Respiration**	week 9	week beginning	05-Mar	At the start....	Revised this.....	I know this.....
11. Gas exchange in humans. Lungs ad associated structures, composition of inhaled and exhaled air, effect of activity on rate and depth of breathing, goblet cells				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
12.1 Respiration Uses of energy				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
12.2 Aerobic respiration. Definition, word and symbol equation, uptake of oxygen, effect of changing temp on oxygen uptake				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
12.3 Anaerobic respiration. Definition, word and symbol equations, amount of energy, lactic acid and oxygen debt				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
13. Excretion in humans	week 10	week beginning	12 Mar	At the start....	Revised this.....	I know this.....
13. Excretion in humans. Excretion of water, urea and carbon dioxide. Role of liver and kidney, factors that affect volume of urine, identify the parts of the urinary system, deamination, nephron structure, kidney failure				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹

14. Coordination and response	week 11	week beginning	19 Mar	At the start....	Revised this.....	I know this.....
14.1 Nervous control in humans. Nerve impulses, parts of the nervous system, reflex arc, synapse, voluntary and involuntary actions, effect of drugs on the synapse				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
14.2 Sense organs. Sense organs, structure and function of parts of the eye, reflex, accommodation, rods, cones and fovea in the retina				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
14.3 Hormones in humans. Define hormone, name hormones site of production and target organs, role of adrenaline, nervous and hormonal control, function of insulin, oestrogen, testosterone				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
14.4 Homeostasis. Define and explain homeostasis, control of body temperature, control of blood glucose, negative feedback, diabetes type 1				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
14.5 Tropic responses. Define and explain phototropism and gravitropism, auxin, weed killer				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
15. Drugs	week 12	week beginning	26 Mar	At the start....	Revised this.....	I know this.....
15.1 Drugs. Definition				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
15.2 Medicinal drugs Antibiotics and antibiotic resistance				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
15.3 Misused drugs. Alcohol, tobacco, heroin, steroids				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
16. Reproduction	week 13	week beginning	02 Apr	At the start....	Revised this.....	I know this.....
16.1 Asexual reproduction. Definition, examples, advantages and disadvantages				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
16.2 Sexual reproduction. Definition of sexual reproduction, fertilisation, haploid, diploid, advantages and disadvantages				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
16.3 Sexual reproduction in plants. Flower parts and functions, pollination, wind pollinated, insect polluted, , self-pollination, cross pollination, pollen tubes, germination				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
16.4 Sexual reproduction in humans. Sex organs, fertilisation, size of gametes, gamete specialisation, pregnancy, placenta and birth, feeding baby				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
16.5 Sex hormones in humans Production and effect of sex hormones				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
16.6 Methods of birth control in humans. Types of contraceptives, effect of hormones to increase fertility and to prevent pregnancy				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
16.7 Sexually transmitted infections (STIs) how these are spread including HIV				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
17. Inheritance **18. Variation**	week 14	week beginning	09 Apr	At the start....	Revised this.....	I know this.....
17.1 Inheritance. Define inheritance				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
17.2 Chromosomes, genes and proteins. Definition of terms, describe gender inheritance, protein production, haploid and diploid cells				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
17.3 Mitosis. Production of body cells				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
17.4 Meiosis. Production of gametes				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
17.5 Monohybrid inheritance. Define terms, pedigree analysis and ratios, codominance and sex linkage				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
18.1 Variation. Definition, genetic and phenotypic variation, continuous and discontinuous variation, mutation and causes of mutation, blood groups, sickle cell anaemia, inheritance and malaria				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
18.2 Adaptive features adaptation, fitness for survival, features of hydrophytes and xerophytes				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
18.3 Selection Natural selection, selective breeding, evolution, antibiotic resistance, improving crops and animals				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹

19. Organisms and their environment	week 15	week beginning	16 Apr	At the start....	Revised this.....	I know this.....
19.1 Energy flow. Energy flow through ecosystems				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
19.2 Food chains and food webs. Food chains and webs, terms – producers, carnivores, consumers, herbivores, omnivores, trophic levels, pyramids of numbers and biomass, efficiency				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
19.3 Nutrient cycles. Carbon cycle, nitrogen cycle, water cycle				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
19.4 Population size. Populations, communities, human population growth				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
20. Biotechnology and genetic engineering **21. Human influences on ecosystems**	Week 16	week beginning	23 Apr	At the start....	Revised this.....	I know this.....
20.1 Biotechnology and genetic engineering. Bacteria and why they are useful				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
20.2 Biotechnology. Yeast for ethanol and bread, fruit juice, biological washing powder, lactose free milk, penicillin				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
20.3 Genetic engineering. Genetic engineering, examples, how it is carried out. Advantages and disadvantages				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
21.1 Food supply. Modern farming techniques, Impacts on environment,				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
21.2 Habitat destruction. Reasons and effects				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
21.3 Pollution. Sources, effects, eutrophication, Greenhouse effect, global warming, acid rain, hormone pollution				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
21.4 Conservation. Sustainable resources, forestry, fish stocks, Fossil fuels, sewage, extinction, conservation programs				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
Topic review	week 17	week beginning	30 April	At the start....	Revised this.....	I know this.....
Attempt past paper questions and study the mark schemes				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹
Topic review	week 18	week beginning	07-May	At the start....	Revised this.....	I know this.....
Attempt past paper questions and study the mark schemes				☺ 😐 ☹	☺ 😐 ☹	☺ 😐 ☹

Message from Mrs. Holmes….

1. STICK to the programme! The later you start, the more you will have to do – every week!
2. Make sure you organise a thorough revision programme.
   - Make your OWN Revision notes – highlight key points
   - Test your knowledge and understanding
   - ASK if you don't understand ANYTHING!
   - Find and complete relevant exam past questions
   - Analyse the mark scheme – why didn't you get full marks??
   - Repeat the questions until you do achieve full marks!
3. Have confidence in you own ability
4. Go to bed early the night before your exam
5. Eat breakfast

Enjoy the exam – there is nothing better than going into an exam confident!!