YEAR 11 G/H – BIOLOGY (IGCSE)

WEEK 13 (22nd Nov to 26th November)

Work sent to students through Class Bio WhatsApp Group/G mail/Google Classroom

Topics 16 & 17 : Chromosomes, genes and DNA & Cell division.

L.O: Discuss gene regulation .Understand how division of a diploid cell by mitosis produces two cells that contain identical sets of chromosomes and how division of a cell by meiosis produces four cells, each with half the number of chromosomes, and that this results in the formation of genetically different haploid gametes.

Sunday- 4th period	**Zoom: Describe** the role of regulator, promoter & structural genes in gene expression**.** https://www.youtube.com/watch?v=EjRXz1xAdow https://www.youtube.com/watch?v=sc9pAk0blgo Textbook page : 237 **Resources**: Textbook, Video Links & Power point. **Students able to:** ●**Define** an operon. ●**Identify** the role of regulator, promoter & structural genes in gene expression**.** ●**Describe** the mechanism of gene regulation .
Monday- 7th period	**Zoom: Describe** how division of a diploid cell by mitosis produces two cells that contain identical sets of chromosomes. https://www.youtube.com/watch?v=DwAFZb8juMQ&t=13s https://www.youtube.com/watch?v=RHyZVmbiA78 Textbook page : 240- 248 **Resources**: Textbook, Video Links & Power point. **Students able to:** ●**Define** the term Mitosis. ●**Identify** the stages of mitosis. ●**Describe** the stages of mitosis.
Tuesday – 3rd and 4th period	**Zoom: Describe** how division of a cell by meiosis produces four cells, each with half the number of chromosomes, and that this results in the formation of genetically different haploid gametes. https://www.youtube.com/watch?v=MNq015d03MU

	https://www.youtube.com/watch?v=nMEyeKQClqI&t=82s Textbook page : 240- 248 **Resources**: Textbook, Video Links & Power point. Students able to: ●**Define** the term Meiosis .●**Identify** the stages of meiosis ●**Describe** the main events during meiosis. ●**Compare and contrast** the processes of mitosis and meiosis.
Wednesday – 5th period	**GC:** Students complete textbook questions pgs (246-248) on Cell division and turn in their work on GC **Resources**: Textbook

YEAR 11 A – F- BIOLOGY (GCSE)

WEEK 13 (22nd November to 26th November)

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Topics – SB 8a –Efficient transport & Exchange & SB8b-Factors affecting diffusion

L.O – Describe the need to transport substances into and out of a range of organisms and the need for exchange surfaces and a transport system in multicellular organisms. Calculation of surface area : volume ratio & correlate to rate of diffusion . Describe the factors affecting the rate of diffusion, including surface area, concentration gradient and diffusion distance.

Sunday-6 th period (girls) **Sunday-8 th period (boys)**	**Zoom session-Efficient transport and exchange.** **Resources:** Board works & Video link https://www.youtube.com/watch?v=fEx338KrTig **Students able to** ●Recall the names & role of substances that need to be transported into and out of the body.●Describe briefly the parts of respiratory system ● Explain how alveoli are adapted for gas exchange by diffusion between air in the lungs and blood in capillaries **Discussion of textbook questions.(page 162)**
Monday -3 rd period (girls)	**Zoom session – Surface Area :Volume Ratio** **Resources :** Board works & Video link

Tuesday -5th period (boys)	https://www.youtube.com/watch?v=DHGWH3NdAjc **Students able to** ●**Calculate** surface area : volume ratios.●Explain the importance of surface area : volume ratios in transport systems. **Discussion of textbook questions.(page 163)**
Tuesday-7 th period (girls) **Wednesday-6th period (boys)**	**Zoom Session–Factors affecting diffusion.(Fick's Law)** **Resources :** Board works & Video link **https://www.youtube.com/watch?v=QW9GpeeKhT8** **Students able to** ● Define the term diffusion ●**Predict** the role of concentration gradient for gaseous exchange. ●Describe what is meant by concentration gradient and use appropriate units **Discussion of textbook questions.(page 164)**
Tuesday-7 th period (girls) **Thursday – 5 th period (boys)**	**Zoom Session–Factors affecting diffusion.(Fick's Law)** **Resources :** Board works & Video link https://www.youtube.com/watch?v=CYaADg5NfEw **Students able to** ●Recall factors affecting rate of diffusion . ●**Explain** how surface area ,concentration gradient & distance affects the rate of diffusion. ●**Calculate** rates of diffusion using Fick's law **Discussion of textbook questions.(page 165)**
Wednesday-7 th period (girls) **Thursday – 6 th period (boys)**	**Google Classroom** Students to complete the text book questions on page 162 & 163 & turn in their work.