YEAR 9 A - F – BIOLOGY

WEEK 29 (14th March to 18th March)

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

SB2d-Stem cells & SB3a.Sexual and asexual reproduction

L.O – Describe the function of embryonic stem cells, stem cells in animals and meristems in plants and the potential benefits and risks associated with the use of stem cells in medicine. Explain some of the advantages and disadvantages of asexual reproduction

Sunday-Zero period(boys) **Sunday-7th period(girls)**	**Zoom: Stem cells(continuation)** **Resources**: Textbook, Video Links & Power point. https://www.youtube.com/watch?v=i2pyDBMglfM https://www.youtube.com/watch?v=Kh27eyjxvYM **Textbook page : 36-37** **Students able to:-** ●**Differentiate** terms pleuripotent, multipotent and totipotent giving suitable examples. ●**Explain** the role of stem cells in plants. ●**Describe** the use of stem cells in curing diseases – Diabetes, Parkinsons disease, organ transplants. ●**Discuss the ethics** of the use of stem cells.
Sunday -1st period(boys) **Wednesday-2nd& 3rd (girls)**	**Zoom Session**: SB3a.Sexual and asexual reproduction **Resources**: Textbook, Video Links & Power point. **https://www.youtube.com/watch?v=LgLkt02Hl9s** https://www.youtube.com/watch?v=mtYCd2LAr_w **Students able to:-** ●Differentiate sexual & asexual reproduction .●Suggest **few mechanisms** of asexual reproduction organisms with examples. ●Identify the advantages and disadvantages of asexual reproduction. ●Compare sexual & asexual reproduction in organisms.
Sunday-2nd period(boys) **Wednesday -3rd period(girls)**	**GC** Students to complete the revision work sheets for **2 nd assessment** and turn in their work in GC.

YEAR 10 A-F – BIOLOGY

WEEK 29 (14th March to 18th March)

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

SB5a-HEALTH AND DISEASE

L.O- Describe health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, as defined by the World Health Organization (WHO) Define and **differentiate** infectious and non infectious diseases.

Sunday – 3rd Period (Boys) **Sunday – 5th Period (Girls)**	**ZOOM SESSION/GOOGLE MEET** **Students must watch the video link given below on** https://www.youtube.com/watch?v=thAyrNpD77A Read Text book Page- 96-97 Read Page 96-97 and complete question1-4 **Resources:** PowerPoint /Board work &Video link **Students able to:-** ●Differentiate the term health & disease.Define the term health and disease.●**Compare** the distribution of new cases of cancer per year with the number of measles cases per year. ●Describe the differences between communicable and non-communicable diseases.

SB5b-NON-COMMUNICABLE DISEASES

L.O- Explain how diet can lead to mal-nutrition. Describe the difference between communicable and non-communicable diseases

Monday-4th period (Boys) **Tuesday -1st Period (Girls)**	**ZOOM SESSION/GOOGLE MEET** **Students must watch the video link given below on** https://www.youtube.com/watch?v=uD0Vy_pzvR8 Read Text book Page- 98 Read page 98 and complete questions 1-4

	Resources: PowerPoint /Board work &Video link **Students able to:-** ●Define and **differentiate** infectious and non infectious diseases. ●Give examples of non-communicable diseases. Define the term malnutrition. ●**Explain** how diet can lead to malnutrition.●Give names of few infectious and non infectious diseases. ●**Describe** how communicable and non-communicable diseases differ.

SB5c-CARDIO-VASCULAR DISEASE

L.O- Explain how mal-nutrition can lead to Obesity Explain BMI.

Tuesday -2nd Period (Girls) **Thursday-1st Period(Boys)**	**ZOOM SESSION/GOOGLE MEET** **Students must watch the video link given below on** https://www.youtube.com/watch?v=A1MrJb2pXgA https://www.youtube.com/watch?v=3UygeIiul40 Read Text book Page- 100 Read page 100 and complete questions 1-4 **Resources:** PowerPoint /Board work &Video link **Students able to:-** ●**Understand** the correlation between BMI and waist. ●**Define** Obesity ●How the body Mass index for adults could be measured ●Explain cause ,symptoms & cure for Kwashiokor .
Wednesday-4th period (Girls) **Thursday-2nd Period (Boys)**	**GOOGLE CLASSROOM** **Students to complete the** Revision Worksheet SB4f.4-Tissue Culture & SB4h.4-GM & Agriculture **and turn in their work within the assigned period.**

YEAR 11 A -F BIOLOGY (GCSE)

WEEK 29 (14th March to 18th March)

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

Topics–SB5-Health ,Disease &Development of medicine.

L.O : To recall cause ,control ,cure & prevention of communicable & non communicable diseases in humans **.**Describe structure , life cycle & diseases caused by virus **.**Explain that there are different kinds of cardiovascular disease, such as heart attack (myocardial infarction), stroke, thrombosis and angina caused due to life style factors .Role of physical & chemical barriers to human diseases .

Biology Worksheet File- Past paper questions

Sunday	**MOCK EXAM:ICT Practicals**
Monday -3 rd period(girls) **Tuesday -5 th period (boys)**	**Zoom session –SB5-Health,Disease &Development of medicine.** **Textbook pages-96 to 104** Resources: Board works , Video link& past papers **https://www.youtube.com/watch?v=QYWNXp36O48** **https://www.youtube.com/watch?v=oIdrn7hLbGk&t=44s** **https://www.youtube.com/watch?v=fCzf3i4UzE0** **https://www.youtube.com/watch?v=5wSfCZESRHU** **https://www.youtube.com/watch?v=0uyE046It3o** **Students able to** ●Define and differentiate infectious and non infectious diseases.●Explain how diet can lead to malnutrition.●Name few disease which involve viruses, bacteria, fungi and protists and disease,●Formulate a table showing different diseases, pathogens involved and mode of transmission.●Define BMI and how obesity is measured (BMI and waist : hip calculations).●Describe how obesity correlates with cardiovascular disease.●Explain how smoking & alcohol correlates with cardiovascular disease ●Understand how life-long medication, such as beta-blockers or

	blood-thinning medicines ,surgical procedures, such as bypass or stent surgery, lifestyle changes, such as giving up smoking, increasing exercise and improving diet.
Tuesday-7 th & 8 th period(girls)	**Zoom session –SB5-Health,Disease &Development of medicine.** **Textbook pages-106 to112.** Resources: Board works , Video link& past papers https://www.youtube.com/watch?v=BPpYuWcIYPM https://www.youtube.com/watch?v=oVg6ycY3eXQ https://www.youtube.com/watch?v=02Mx7s8gIig **Students able to** ●Identify the role of poisonous chemicals in young lupin leaves. ●**Describe** the role of digoxin, quinine& aspirin to cure disease in humans along with their source●.Enlist the common pathogens of crop plants ●Identify symptoms shown by plants when infected by pathogens .●**Explain** how plant diseases are detected using visible symptoms, environmental causes of plant problems are eliminated when identifying disease and how distribution analysis can help identify a plant disease ●Define physical and chemical barriers.●Give physical barriers & chemical barriers of the human body to resist infection
Wednesday	**MOCK EXAM**
Thursday	**MOCK EXAM**

YEAR 11 G &H – BIOLOGY (IGCSE)

WEEK 29 (14th March to 18th March)

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

REVISION : Units 3, & 5: PLANT PHYSIOLOGY AND VARIATION AND SELECTION

L.O.: To revise and explain how the process of natural selection leads to evolution; draw and evaluate genetic diagrams to show patterns of inheritance. To describe the response of plants to a given stimulus and the role of plant hormones.

Sunday	**MOCK EXAM:ICT Practicals**
Monday- 7th period	**Zoom: Describe** the response of plants to a given stimulus and the role of plant hormones. **Resources**: Worksheet, Video Links & Power point. https://www.youtube.com/watch?v=rKHIfsHX1aA Revision Worksheets **Students able to:** ●**Describe** the role of auxins in phototropism**.** ●**Explain** the uses of plant hormones. ●**Predict** the response of plant to a given stimulus.
Tuesday – 3rd and 4th period	**Zoom: Describe** how the process of natural selection leads to evolution; draw and evaluate genetic diagrams to show patterns of inheritance **Resources**: Worksheet, Video Links & Power point. https://www.youtube.com/watch?v=seKxYdnq42U https://www.youtube.com/watch?v=agQpPPQ5IVQ&t=1559s Revision Worksheets **Students able to:** ●**Define** a test cross. ●**Complete** a given genetic diagram of monohybrid cross. ●**Evaluate** a given pedigree chart●**Explain** the process of natural selection leads to evolution
Wednesday	**MOCK EXAM**

YEAR 12 B1 and B2 - BIOLOGY

WEEK 29 (14th March to 18th March)

Work sent through Google classroom/G mail/Online Quiz/ZOOM Learning Platform

Topic -4.3-6-Control of heart 4.3.7-Atherosclerosis

L.O – Describe the structure of the heart and Explain the sequence of events of the cardiac cycle and atherosclerosis

Biology Students Book 1

B1- Sunday – 8th period[zoom] **B2- Tuesday – 3rd period [Zoom]**	**Students able to** • **Describe** the functions of SA node and AV node. • Give reason why does left ventricle need to generate more pressure than right ventricle. **Resources/Materials**: **BOARD WORKS – BOARD WORKS –The heart No[9-19]** **Video and PPT: Structure and functions of heart.** :www.science.co.uk/biology/mammalian heart.html, www.internet4classrooms.com Visit www.nobelprize.org and search for 'ECG' for more detail on how ECGs work and an ECG diagnosis game. For an animation to show the electrical activity ofthe heart and ECG, visit www.nhlbi.nih.gov and follow 'Public' then 'Health Topics', then click on'How the Heart Works' and 'Electrical System'. **Text Book Page Numbers – 260 & 263**
B1 - Monday – 1st & 2nd period (Zoom) **B2- Thursday – 5th and 6th period(Zoom)**	**Students able to** Give examples of cardiovascular diseases. • Describe the stages that lead to atherosclerosis, its affect on health and the factors that increase the risk of its development. • Analyse and interpret the graphs given for CVD • **BOARD WORKS –Life style and disease—8- 12** **Video and PPT: Cardiovascular diseases** :www.science.co.uk/biology/cardiovascular diseases.html,

	www.internet4classrooms.com Go to www.nhs.uk then search for 'Atlas of riskhealth tools'. Extend: Read about the Framingham Heart Study, a longitudinal study that investigated risk factors for heart disease. Visit www.framinghamheartstudy.org and then click on 'About' to see information on the history and epidemiological design **Text Book Page Numbers – 263 & 265**

YEAR 12 - Batch 1 - BIOLOGY

WEEK 29 (14th March to 18th March)

Work sent to students through Class Bio Whats App Group /Google Classroom

Topic 2 . 4 - 2 – Chromosome mutations & Topic 2 . 4 - 5 – Embryo Development in mammals

L.O – Discuss translocation & non-disjunction that lead to polysomy & monosomy.and early development of the human embryo to the blastocyst stage

Biology Students Book 1

B1- Tuesday– 4th period(Zoom)	**Students able to** ● **Identify** stages of early embryonic development –morula, blastula & blastocyst ● **Describe** the changes from zygote upto balstocyst during early embryonic development ● **Explain** changes in potency of cells during embryonic development ● **Evaluate** methods of treating infertility-IVF, embryo transfer & blastocyst transfer **Resources:** PowerPoint - Early embryonic development & Video link https://www.youtube.com/watch?v=uP7IHXAaJq4 https://www.youtube.com/watch?v=1zpV5rzWXMA https://www.youtube.com/watch?v=P27waC05Hdk **Students to complete text book questions – pg.145**
B1- Thursday– 1st period(Zoom)	**Students able to** ●**Identify** insertion, deletion, translocation & inversion that causes chromosome mutation ●**Define** key terms-non disjunction, monosomy, polysomy, aneuploidy

	●**Compare** Downs Syndrome, Jacobs syndrome ,Klinifelter's Syndrome & Turners Syndrome . ●**Evaluate** factors affecting mutation rate **Resources:** Boardworks & PowerPoint - Chromosome mutation & Video link **https://www.youtube.com/watch?v=py3u9lINLWQ** **https://www.youtube.com/watch?v=WvV89IN6lv8** **https://www.youtube.com/watch?v=V49g3Vj9RS8** **https://www.youtube.com/watch?v=py3u9lINLWQ** **Students to complete text book questions – pg.134** **Research on other chromosome abnormalities in humans .**
B1- Thursday–2 nd period(GC)	**Students to complete Exam style questions Topic 2.4 pg.148&149** **Think Bigger activity – Treating Male infertility questions pg.147 q.4 & 5**

YEAR 12 - Batch 2 - BIOLOGY

WEEK 29 (14th March to 18th March)

Work sent to students through Class Bio Whats App Group /Google Classroom

Topic 3.1-1 – Principles of classification , Topic 3.1-2-What is a species ? & Topic 3.1-5 – Domains ,Kingdom or both?

L.O – Discuss classification system - five kingdom ,three domain & six kingdom classification and Species model – morphological, biological, ecological, evolutionary & genetic species model

Biology Students Book 1

B2- Monday – 5th &8th period(Zoom)	**Students able to** ●**Identify** types of classification system - five kingdom ,three domain & six kingdom classification ● **Compare** five kingdom ,three domain & six kingdom classification ●**Differentiate** species model - morphological, biological, ecological, evolutionary & genetic species model ●**Evaluate use of Binomial system ,Prometheus & VIADOCS** **Resources:** Boardworks & PowerPoint - Classification & Video link https://www.youtube.com/watch?v=nB6exRHHPrY https://www.youtube.com/watch?v=fQwI90bkJl4

	https://www.youtube.com/watch?v=skCHK_5LrhQ&t=519s https://www.youtube.com/watch?v=sMg_3NY76UE **Students to complete text book questions – pg.157**
B2- Wednesday– 5th period(GC)	**Students to complete Exam style questions Topic 2.4 pg.148&149** **Think Bigger activity – Treating Male infertility questions pg.147 q.4 & 5**

YEAR 13 B1 and B2 - BIOLOGY

WEEK 29 (14th March to 18th March)

Work sent through Google classroom/G mail/Online Quiz/ZOOM Learning Platform

Topic -1Biological molecules & Topic -4 Exchange and transport

L.O –Revise and recall the concepts related to Biological molecules and Exchange and transport

Biology worksheet file, past papers and text book, Board works

B1- Tuesday – 5 th period (Zoom) **B2- Sunday – 0 period (Zoom)**	Discussion and revision of concepts based on carbohydrate ,lipids ,proteins, DNA, mutations and enzymes **Resources:** Worksheets and Text book Page numbers -18 to 62 **Students able to** **Recall and revise** concepts based on carbohydrate ,lipids ,proteins, DNA, mutations and enzymes
B1- Thursday – 1st and 2nd period(Zoom) **B2 - Monday – 8th & Thursday 7th period (Zoom)**	. Discussion and revision of concepts based on cell transport mechanisms.gas exchange ,circulation, transport in plants and animals Text book pages -210 to 287 **Resources:** Worksheets and Text book Page numbers-210 to 287 **Students able to** **Recall and revise** cell transport mechanisms.gas exchange ,circulation, transport in plants and animals

YEAR 13 Batch 1& 2 - BIOLOGY

WEEK 29 (14th March to 18th March)

Work sent to students through Class Bio Whats App Group /Google Classroom

Topic 9.1 – Chemical control in mammals and plants & Topic 8.2 – Gene Pool

L.O – Recall hormonal control in animals & plants , gene pool, allele frequency & types of natural selection linked to evolution

Biology Students Book 2

B2 - Sunday –6th & 7 th Period (Zoom) **B1- Monday –1st & 2nd Period (Zoom)**	**Discussion of revision worksheet on chemical control in animals & plants** **Students able to** ● Compare positive and negative feedback mechanism ● Describe mechanism of hormone action in humans ● Explain chemical control in plants – role of auxin, cytokinin, Ethane & gibberelin ● Co relate role of phytochrome in flowering, germination, etiolation-photo morhogenesis **Resources:** Video link https://www.youtube.com/watch?v=7STDtdryYTI https://www.youtube.com/watch?v=hGStvgESLJ0&t=377s https://www.youtube.com/watch?v=x0DhI2Kronk&t=88s **Students to do text book questions -pg.229**
B2 - Monday– 3rd Period (Zoom) **B1- Tuesday – 4 th Period (Zoom)**	**Discussion of revision worksheet on Gene pool** **Students able to** ● Differentiate types of natural selection –stabilising, disruptive & directional selection ● Calculate allele frequency using Hardy Weinberg equation ● Explain how population bottleneck and founder effect affect allele frequency **Resources:** Video link https://www.youtube.com/watch?v=4YqOF-XNa9c https://www.youtube.com/watch?v=SRWXEMlI0_U https://www.youtube.com/watch?v=oG7ob-MtO8c&t=201s **Students to do text book questions pg.232**