

YEAR 9 A-F – BIOLOGY

WEEK 42 (13th June to 17th June)

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

SB 2g-The nervous system & SB2i-Neurotransmission speeds.

L.O: Explain the structure and function of sensory neurones, motor neurons and synapses in the transmission of electrical impulses including the axon, dendron, myelin sheath and the role of neurotransmitters. Explain the structure and function of a reflex arc including sensory, relay and motor neurones.

<p>Sunday-Zero period(boys) Sunday-7th period(girls)</p>	<p>Zoom: SB 2g-The nervous system Resources: Board works & Video link https://www.youtube.com/watch?v=rsMjUvMXxpE https://www.youtube.com/watch?v=btdVcSLTfDk https://www.youtube.com/watch?v=09eVouoCLaw Students able to: ●Define a neurone. ●Draw and label parts of a typical neuron. ●Explain the role of major parts of a typical neurone. Draw and label motor, sensory and relay neurones. ●Give few differences & similarities of neurones- sensory, motor & relay. ●Define and explain role of different neurotransmitters.</p>
<p>Sunday -1st period(boys) Wednesday-2nd period (Girls)</p>	<p>Zoom: SB2i-Neurotransmission speeds Resources:Resources: Board works & Video link https://www.youtube.com/watch?v=tNTQVMhYpD0 https://www.youtube.com/watch?v=Nn2RHLWST-k Students able to:- ●Transmission of nerve impulse across synapse. ●Define reflex action reflex arc & synapse. ●Explain why is it necessary for neurones to link with each other. ●Identify effectors in our body. ●Give examples of reflex action</p>
<p>Sunday-2nd period(boys) Wednesday- 3rd period (Girls)</p>	<p>GC: Completion of text book questions, pages 42 -43</p>

YEAR 10 A,D&E – BIOLOGY

WEEK 42 (13th June to 17th June)

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

SB-5i-Physical and chemical barriers

L.O- Describe how the physical barriers and chemical defences of the human body provide protection from pathogens, including: **a.** physical barriers, including mucus, cilia and skin **b.** chemical defence, including lysozymes and hydrochloric acid.

<p>Sunday – 5th Period (Girls)</p>	<p><u>ZOOM SESSION/GOOGLE MEET</u></p> <p>Students must watch the video link given below on</p> <p>https://www.youtube.com/watch?v=aq-F4rNuj3Y</p> <p>Read Text book Page- 112-113</p> <p>Complete question Page -112-qn1-3, Page 113- S1,E1 &Exam style question.</p> <p>Resources: PowerPoint /Board work &Video link</p> <p>Students able to:-</p> <p>Define physical and chemical barriers. Give two physical barriers & chemical barriers of the human body to resist infection. Describe the role of two physical & chemical barriers in human body to resist infections. Describe how physical barriers protect the body (e.g. skin, mucus and cilia).</p> <p>Explain how chemical barriers protect the body (e.g. lysozymes, hydrochloric acid).</p>
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SB-5k-Antibiotics

L.O- Explain that antibiotics can only be used to treat bacterial infections because they inhibit cell processes in the bacterium but not the host organism.

<p>Tuesday -1st Period (Girls)</p>	<p><u>ZOOM SESSION/GOOGLE MEET</u></p> <p>Students must watch the video link given below on</p> <p>https://www.youtube.com/watch?v=uQt5bRikD4g</p>
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	<p>Read Text book Page- 116-117</p> <p>Complete question Page 116- qn 1-4</p> <p>Resources: PowerPoint /Board work &Video link</p> <p>Students able to:-</p> <p>Recall the structure , role of antibiotic & resistance of bacteria. Differentiate bacteriostatic & bactericidal antibiotics .Describe antibiotics can damage the membrane of a bacterium but not the animal cell.Explain why antibiotics are useful for treating bacterial infections (because they do not damage human cell processes) and cannot be used to treat infections by pathogens other than bacteria.</p>
<p>Tuesday -2nd Period (Girls)</p>	<p>GOOGLE CLASSROOM</p> <p>Students to complete the Text book questions Page 106-107 and turn in the work in GC</p>

SB5k-Antibiotics—Drug Trial Techniques

L.O- Describe the stages of development of new medicines.

<p>Wednesday-4th period(Girls)</p>	<p><u>ZOOM SESSION</u></p> <p>Students must watch the video link given below on</p> <p>https://www.youtube.com/watch?v=0iSuyY3a9L0</p> <p>Read Text book Page- 116-117</p> <p>Complete question Page 117- qn 5, S1,E1 &Exam style question</p> <p>Resources: PowerPoint /Board work &Video link</p> <p>Students able to:-List the stages of developing a new medicine, from discovery to prescription. Describe the stages of development of new medicines. Describe two stages of pre-clinical testing in the development of a new antibiotic.</p>
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YEAR 10 B,C&F – BIOLOGY

WEEK 42 (13th June to 17th June)

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

SB-5i-Physical and chemical barriers

L.O- Describe how the physical barriers and chemical defences of the human body provide protection from pathogens, including: **a.** physical barriers, including mucus, cilia and skin **b.** chemical defence, including lysozymes and hydrochloric acid.

Sunday – 3rd Period (Boys)	<p><u>ZOOM SESSION/GOOGLE MEET</u></p> <p>Students must watch the video link given below on</p> <p>https://www.youtube.com/watch?v=aq-F4rNuj3Y</p> <p>Read Text book Page- 112-113</p> <p>Complete question Page -112-qn1-3, Page 113- S1,E1 &Exam style question.</p> <p>Resources: PowerPoint /Board work &Video link</p> <p>Students able to:-</p> <p>Define physical and chemical barriers. Give two physical barriers & chemical barriers of the human body to resist infection. Describe the role of two physical & chemical barriers in human body to resist infections. Describe how physical barriers protect the body (e.g. skin, mucus and cilia).</p> <p>Explain how chemical barriers protect the body (e.g. lysozymes, hydrochloric acid).</p>
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SB-5k-Antibiotics

L.O- Explain that antibiotics can only be used to treat bacterial infections because they inhibit cell processes in the bacterium but not the host organism.

Monday-4th period (Boys)	<p><u>ZOOM SESSION/GOOGLE MEET</u></p> <p>Students must watch the video link given below on</p> <p>https://www.youtube.com/watch?v=uQt5bRikD4g</p>
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	<p>Read Text book Page- 116-117</p> <p>Complete question Page 116- qn 1-4</p> <p>Resources: PowerPoint /Board work &Video link</p> <p>Students able to:-</p> <p>Recall the structure , role of antibiotic & resistance of bacteria. Differentiate bacteriostatic & bactericidal antibiotics .Describe antibiotics can damage the membrane of a bacterium but not the animal cell.Explain why antibiotics are useful for treating bacterial infections (because they do not damage human cell processes) and cannot be used to treat infections by pathogens other than bacteria.</p>
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YEAR 11 A - F BIOLOGY (GCSE)

WEEK 42 -(13th June to 17th June)

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

Topics :SB9i-Food security & SB9j-The Water cycle

L.O.: Describe the biological factors affecting levels of food security. Explain the importance of water cycle.

<p>Sunday-6th period(girls) & 8th period(boys)</p>	<p>Zoom Session– SB9i-Food security</p> <p>Text book pages 194 to 195- Discussion of text book questions.</p> <p>Resources: Board works & Video link</p> <p>https://www.youtube.com/watch?v=nrbJI3R4YJU</p> <p>https://www.youtube.com/watch?v=fElhrp5460w</p> <p>Students able to</p> <ul style="list-style-type: none"> ● Recall global food security ●Identify few factors that affect food security. ●How is food security affected by different factors? ●Explain why biofuels are renewable source of energy.
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	<ul style="list-style-type: none"> ●Identify some advantages & disadvantages of replacing fossil fuels with biofuels. ●Describe some advantages of growing biofuels.
Monday -3rd period(girls) Tuesday -5th period (boys)	Zoom session- SB9j-The Water cycle Text book pages 196 to 197- Discussion of text book questions Resources: Board works & Video link https://www.youtube.com/watch?v=IFgnymK7pJA Students able to <ul style="list-style-type: none"> ●. Enlist few materials that cycle through ecosystem ●Explain what process is involved in cycling of materials ●Draw & describe the stages of water cycle through ecosystems. ●Explain how is potable drinking water produced. ●Explain the use of desalination & distillation method to purify water
Tuesday-7th & 8th period(girls)	Asynchronous lesson SB8d-The heart Research – Explain how an artificial heart pacemaker ,which delivers a regular electric shock to the right atrium ,can help to maintain steady heart rate in people when natural pace maker is no longer working properly
Wednesday--6th period (boys) & 7th period (girls)	Asynchronous- SB9m-Rates of decomposition Completion of worksheet – Controlling decay

YEAR 11 G & H – BIOLOGY (IGCSE)

WEEK 42 (13th June to 17th June)

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

ECOSYSTEM: Quadrats

L.O.: To investigate the population size of an organism in two different areas , distribution of organisms and measure biodiversity using quadrats.

Sunday- 4th period	Asyn GC: Asynchronous- -Ecosystem and Biodiversity <u>Resources:</u> Worksheet Students complete the WS on Ecosystem and Biodiversity and turn in their work on GC.
Monday- 7th period	Asyn GC: Asynchronous- -Using Quadrats <u>Resources:</u> Worksheet Students complete the WS on Using Quadrats and turn in their work on GC.
Tuesday – 3rd and 4th period	Zoom: To investigate the population size of an organism in two different areas, distribution of organisms and measure biodiversity using quadrats. https://www.youtube.com/watch?v=RhMOCxXcDrQ <u>Resources:</u> Video Links & practical sheet Students able to: Identify the risks and hazards during the investigation. Plot a graph based on the observations. Draw conclusion from the observations.
Wednesday – 5th period	Asyn GC: Students complete the practical sheet and turn in the practical on GC.

YEAR 12 - Batch 1 - BIOLOGY

WEEK 42 (13th June to 17th June)

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

Topic 3 . 3 - Biodiversity

L.O – Discuss techniques of in situ & ex situ conservation of endangered species .

Biology Students Book 1

B1-Tuesday – 4th period(Zoom)	Students able to <ul style="list-style-type: none">●Differentiate in situ & ex situ conservation techniques●Describe captive breeding programmes in conserving endangered species●Explain role of seed banks in conserving plant species Resources: AS Board works-Conservation & Video link https://www.youtube.com/watch?v=KvL3B9594Vk&t=187s https://www.youtube.com/watch?v=7H2mV-TPueA Students to complete text book questions Students book 1 Textbook Questions – Page 207
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YEAR 12 - Batch 2 - BIOLOGY

WEEK 42 (13th June to 17th June)

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

Topic 3. 2 .Natural Selection & Speciation

L.O – To discuss role of antibiotics in MRSA bacteria , Speciation & Adaptive radiation favouring evolution

Biology Students Book 1

B2-Monday – 5th & 8 th period(Zoom)	Students able to <ul style="list-style-type: none">●Identify the stages involved in production of MRSA bacteria●Explain role of mutation & sexual reproduction in production of MRSA bacteria●Evaluate the use of antibiotics Resources: A2 Board works-Natural selection & Video link https://www.youtube.com/watch?v=E6nJosVZf6c https://www.youtube.com/watch?v=4Ci7MRUzABs
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	<p>Students to complete text book questions Pg.182 q.1-4 & exam style questions on topic 3.2 text book questions Pg.190 &191</p>
<p>B2- Wednesday – 5th period(Zoom)</p>	<p>Students able to</p> <ul style="list-style-type: none"> ● Define the term speciation. ● Identify & give examples of types of isolation – geographical, ecological, seasonal ,behavioural & mechanical. ● Describe types of speciation – allopatric & sympatric speciation ● Suggest the significance of speciation and isolation in evolution. <p>Resources: Boardworks & PowerPoint - Evolution & Video link https://www.youtube.com/watch?v=VI8OsBJF7PM https://www.youtube.com/watch?v=xRFV5fogo4g</p> <p>Discussion of questions on Pg.187.q.1-6</p>

YEAR 12 B1 &B2- BIOLOGY

WEEK 42 (13th June to 17th June)

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

Topic - Statistics and revision of core practical based qns

L.O – Explain ,analyse ,evaluate .interpret statistics and revision of core practical based qns

Biology Students Book 1

<p>B1- Sunday – 8th period[Zoom]</p> <p>B2- Tuesday – 3rd period [Zoom]</p>	<p>Revise and discuss the work sheets given based on statistical tests.</p> <p>Students able to</p> <ul style="list-style-type: none"> ● Define standard deviation and error bar ● Interpret and analyse the t test ,correlation and chi square test ● Differentiate between t test ,correlation and chi square test <p>BOARD WORKS –AS board works Video and PPT: Statistical tests in biology</p>
<p>B1 - Monday – 1st & 2nd period (GC)</p>	<p>GC-Asynchronous learning</p> <p>Practical oriented questions-. Answer the questions given on and task to be turned in Google classroom</p>

YEAR 13 B1 & B2- BIOLOGY

WEEK 42 (13th June to 17th June)

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

L.O –Revise and recall the concepts related to Antibiotics–case study

<p>B2- Sunday – 0 period (Zoom) B1- Tuesday – 5th period (Zoom)</p>	<p>Discuss answers of Case study-Anti-adhesive antibiotics ,analyse and evaluate the advantages and disadvantages based on the case study given and task to be turned in Google classroom</p> <p>Resources: Case study and worksheets based on Antibiotics</p> <p>Students able to analyse and evaluate the concepts on antibiotics</p>
<p>B2 - Monday – 8th period (GC)</p>	<p>Asynchronous learning-Research work Male pregnancy in animals-analyse and evaluate the advantages and disadvantages and task to be turned in Google classroom</p>

YEAR 13 Batch 1& 2 - BIOLOGY

WEEK 42 - 13th June to 17th June

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

Topic 9.3 – 4:- Thermoregulation

L.O –.Describe the parts & functions of various parts of the human skin. Explain negative & positive feedback mechanism involved in thermoregulation Adaptive features of endotherms in thermoregulation .

Topic7:- Modern Genetics

L.O – To recall use of animals in genomic studies

Biology Students Book 2

<p>B2 - Sunday –6th & 7th Period (Zoom)</p> <p>B1- Monday –1st & 2nd Period (Zoom)</p>	<p>Students presenting ppt on ectotherms and endotherms in groups allotted , followed by discussion on Allens Rule & Bergmans Rule related to thermoregulation</p> <p>Students able to</p> <ul style="list-style-type: none">● Differentiate ectotherms and endotherms● Identify adaptive features of endotherms living in extreme environment● Describe role of hibernation ,aestivation and countercurrent mechanism related to thermoregulation●significance of Allens Rule & Bergmans Rule related to thermoregulation <p>Resources: Board works & PPT - Homeostasis & Video link</p> <p>https://www.youtube.com/watch?v=TSUCdLkI474</p> <p>https://www.youtube.com/watch?v=Wrnpp184Lv8</p> <p>https://www.youtube.com/watch?v=yQ4iIpUiNBI</p> <p>Students to complete text book questions Pg.239</p>
<p>B2 - Monday– 3rd Period (GC)</p> <p>B1- Tuesday – 4th Period (GC)</p>	<p>Much of the work on genomics has been done using animal models . Research on ethical, economical & biological issues related to use of animal models . Include references and document to be turned in GC as pdf document</p>