

## YEAR 9 A-F – BIOLOGY

**WEEK 30 (21<sup>st</sup> March to 25<sup>th</sup> March)**

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

**Topics: SB 3b-Meiosis**

**L.O.:** Explain the role of meiotic cell division, including the production of four daughter cells, each with half the number of chromosomes, and that this results in the formation of genetically different haploid gametes.

<p><b>Sunday-Zero period( boys)</b> <b>Sunday-7<sup>th</sup> period(girls)</b></p>	<p><b>Zoom: Assessment 2: Asexual Reproduction, Cancer and Cell differentiation (15 marks )</b></p>
<p><b>Sunday -1<sup>st</sup> period(boys)</b> <b>Wednesday-2<sup>nd</sup> period (girls)</b></p>	<p><b>Zoom: Explain</b> the role of meiotic cell division, including the production of four daughter cells, each with half the number of chromosomes, and that this results in the formation of genetically different haploid gametes.</p> <p><a href="https://www.youtube.com/watch?v=micUPynqx9k">https://www.youtube.com/watch?v=micUPynqx9k</a> <a href="https://www.youtube.com/watch?v=5pvwIsDE6eg">https://www.youtube.com/watch?v=5pvwIsDE6eg</a></p> <p><u>Textbook page : 52-53</u></p> <p><b>Resources:</b> Textbook, Video Links &amp; Power point.</p> <p><b>Students able to:-</b></p> <ul style="list-style-type: none"> <li>●<b>Differentiate</b> terms pluripotent, multipotent and totipotent giving suitable examples.</li> <li>●<b>State</b> the number of chromosomes in a male gamete</li> <li>●<b>Organize</b> the various stages of meiosis in sequence.</li> <li>●<b>Describe</b> the production of gamete cells by meiosis.</li> </ul>
<p><b>Sunday-2<sup>nd</sup> period(boys)</b> <b>Wednesday -3<sup>rd</sup> period(girls)</b></p>	<p><b>GC:</b> Students write answers to textbook qns on Pgs 52-53 and turn in their work on GC.</p> <p><b><u>Resources:</u></b> Textbook</p>

## YEAR 10 A-F – BIOLOGY

**WEEK 30 (21<sup>st</sup> March to 25<sup>th</sup> March)**

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

### SB5b-NON-COMMUNICABLE DISEASES-ALCOHOL& SMOKING DISEASE

**L.O-** Describe the effects of smoking, drinking alcohol and how it is harmful to health.

<p><b>Sunday – 3rd Period (Boys)</b> <b>Sunday – 5th Period (Girls)</b></p>	<p style="text-align: center;"><b><u>ZOOM SESSION/GOOGLE MEET</u></b></p> <p>Students must watch the video link given below on</p> <p><a href="https://www.youtube.com/watch?v=YxGqprKIOAc">https://www.youtube.com/watch?v=YxGqprKIOAc</a></p> <p><a href="https://www.youtube.com/watch?v=H6DrSG_KQjo">https://www.youtube.com/watch?v=H6DrSG_KQjo</a></p> <p>Read Text book Page- 99,101</p> <p>Read page 99 complete questions 5-7&amp;S1</p> <p>Read Page 101 complete question 5</p> <p><b>Resources:</b> PowerPoint /Board work &amp;Video link</p> <p><b>Students able to:-</b></p> <ul style="list-style-type: none"> <li>●Define and differentiate the risk on smoking and alcohol consumption.</li> <li>●Give examples of diseases caused due to smoking and alcohol.</li> <li>●Explain the short term and long term effects of alcohol.</li> <li>●Describe the harmful effects of smoking.</li> </ul>
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### SB4f.4&SB4h.4-Worksheet- Genetic engineering & Tissue culture

<p><b>Monday-4th period (Boys)</b> <b>Tuesday -1<sup>st</sup> Period (Girls)</b></p>	<p style="text-align: center;"><b><u>ZOOM SESSION/GOOGLE MEET</u></b></p> <p>Revision Worksheet SB4f.4-Tissue Culture &amp; SB4h.4-GM &amp; Agriculture will be discussed by the teacher.</p>
<p><b>Thursday-1<sup>st</sup> Period(Boys)</b> <b>Wednesday-4th period (Girls)</b></p>	<p style="text-align: center;"><b><u>Zoom Session/Google Meet: Assessment-2</u></b> <b>(15 marks)</b></p> <p>Topics SB4e,f,g,h-Genetic Engineering &amp; Cloning</p>
<p><b>Thursday-2nd Period (Boys)</b> <b>Tuesday -2nd Period (Girls)</b></p>	<p style="text-align: center;"><b><u>GOOGLE CLASSROOM</u></b></p> <p><b>Students to complete the Text book Pages- 96-97 and turn in the work within the assigned period.</b></p>

## YEAR 12 -B1/B2 - BIOLOGY

WEEK 30 (21<sup>st</sup> March to 25<sup>th</sup> March)

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

Topic - 4.3.8- Risk factors of Atherosclerosis

L.O – Explain the factors that increase the risk of developing cardiovascular diseases

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

<p>B1- Sunday – 8th period[GC] B2- Tuesday – 3rd period [Gc]</p>	<p><b>GC-Research Work</b> <b>Thinking Bigger-272-273 Text book</b> <b>An artificial Pacemaker–Collect relevant details about this topic answer the questions given on page 273, include bibliography and task to be turned in Google classroom</b></p> <p><b>Text Book Page Numbers – 272-273</b></p>
<p><b>B1 - Monday – 1st &amp; 2nd period (Zoom)</b> <b>B2- Thursday – 5th and 6th period(Zoom)</b></p>	<p><b>Students able to</b></p> <p>Explain the factors that increase the risk of developing cardiovascular diseases.</p> <ul style="list-style-type: none"><li>• Explain the difference between risk,correlation and causation</li><li>• Analyse and interpret the graphs given for CVD</li></ul> <p><b>BOARD WORKS –Life style and disease— 12-24</b></p> <p><b>Video and PPT: Cardiovascular diseases-risk factors</b></p> <p><a href="http://www.science.co.uk/biology/cardiovascular_diseases.html">:www.science.co.uk/biology/cardiovascular_diseases.html</a>, <a href="http://www.internet4classrooms.com">www.internet4classrooms.com</a></p> <p>Go to <a href="http://www.nhs.uk">www.nhs.uk</a> then search for ‘Atlas of riskhealth tools’.</p> <p>Extend: Read about the Framingham Heart Study, a longitudinal study that investigated risk factors for heart disease. Visit <a href="http://www.framinghamheartstudy.org">www.framinghamheartstudy.org</a> and then click on ‘About’ to see information on the history and epidemiological design</p> <p><b>Text Book Page Numbers – 266-267</b></p>

## YEAR 12 - Batch 1 - BIOLOGY

WEEK 30 (21<sup>st</sup> March to 25<sup>th</sup> 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

**Topic 3.1- 3 – Identifying individual species & Topic 7:- Using Gene Sequencing**

L.O –Role of PCR & DNA finger printing in identifying species & gene sequencing

**Biology Students Book 1 & 2**

<p><b>B1- Tuesday– 4<sup>th</sup> period(Zoom)</b></p>	<p><b>Students able to</b></p> <ul style="list-style-type: none"> <li>● <b>Identify</b> types of classification system - five kingdom ,three domain &amp; six kingdom classification</li> <li>● <b>Compare</b> five kingdom ,three domain &amp; six kingdom classification</li> </ul> <p><b>Resources:</b> Boardworks &amp; PowerPoint - Classification &amp; Video link  <a href="https://www.youtube.com/watch?v=nB6exRHHPrY">https://www.youtube.com/watch?v=nB6exRHHPrY</a>  <a href="https://www.youtube.com/watch?v=fQwI90bkJI4">https://www.youtube.com/watch?v=fQwI90bkJI4</a></p>
<p><b>B1- Thursday– 1<sup>st</sup> period(Zoom)</b></p>	<p><b>Students able to</b></p> <ul style="list-style-type: none"> <li>● <b>Differentiate</b> species model - morphological, biological, ecological, evolutionary &amp; genetic species model</li> <li>● <b>Evaluate use of Binomial system ,Prometheus &amp; VIADOCS</b></li> </ul> <p><b>Resources:</b> Boardworks &amp; PowerPoint - Classification &amp; Video link  <a href="https://www.youtube.com/watch?v=skCHK_5LrhQ&amp;t=519s">https://www.youtube.com/watch?v=skCHK_5LrhQ&amp;t=519s</a>  <a href="https://www.youtube.com/watch?v=sMg_3NY76UE">https://www.youtube.com/watch?v=sMg_3NY76UE</a></p> <p><b>Students to complete text book questions – pg.157</b></p>
<p><b>B1- Thursday–2<sup>nd</sup> period(Zoom)</b></p>	<p><b>Students able to</b></p> <ul style="list-style-type: none"> <li>● <b>Identify</b> stages of PCR &amp; DNA finger printing</li> <li>● <b>Describe</b> how PCR amplifies DNA content for analysis</li> <li>● <b>Explain</b> role of Gel electrophoresis &amp; southern blotting technique , DNA hybridization &amp; autoradiography works in gene sequencing</li> <li>● <b>Evaluate use of PCR ,Gel electrophoresis , southern blotting technique , DNA hybridization &amp; autoradiography ,in gene</b></li> </ul>

	sequencing <b>Resources:</b> Boardworks & PowerPoint - Study of Genome & Video link <a href="https://www.youtube.com/watch?v=QEG8dz7cbnY">https://www.youtube.com/watch?v=QEG8dz7cbnY</a> <a href="https://www.youtube.com/watch?v=CSrUm-EgTK4">https://www.youtube.com/watch?v=CSrUm-EgTK4</a> <a href="https://www.youtube.com/watch?v=z7ZaceU3tfE">https://www.youtube.com/watch?v=z7ZaceU3tfE</a> <b>Students to complete text book questions – STUDENT’S BOOK 2 - Textbook Questions – Page 95, 97 and 101</b>
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## YEAR 12 - Batch 2 - BIOLOGY

**WEEK 30 (21<sup>st</sup> March to 25<sup>th</sup> March)**

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

**Topic 3.1- 3 – Identifying individual species & Topic 7:- Using Gene Sequencing**

**L.O** –Role of PCR, Restriction Mapping , Sanger’ Method & DNA finger printing in identifying species & gene sequencing

**Biology Students Book 1& 2**

<b>B2- Monday – 5<sup>th</sup> &amp; 8<sup>th</sup> period(Zoom)</b>	<b>Students able to</b> <ul style="list-style-type: none"> <li>● <b>Identify</b> stages of PCR &amp; DNA finger printing</li> <li>● <b>Describe</b> how PCR amplifies DNA content for analysis</li> <li>● <b>Explain</b> role of Gel electrophoresis &amp; southern blotting technique , DNA hybridization &amp; autoradiography works in gene sequencing</li> <li>● <b>Evaluate use of</b> PCR ,Gel electrophoresis , southern blotting technique , DNA hybridization &amp; autoradiography ,in gene sequencing</li> </ul> <b>Resources:</b> Boardworks & PowerPoint - Study of Genome & Video link <a href="https://www.youtube.com/watch?v=QEG8dz7cbnY">https://www.youtube.com/watch?v=QEG8dz7cbnY</a> <a href="https://www.youtube.com/watch?v=CSrUm-EgTK4">https://www.youtube.com/watch?v=CSrUm-EgTK4</a> <a href="https://www.youtube.com/watch?v=z7ZaceU3tfE">https://www.youtube.com/watch?v=z7ZaceU3tfE</a> <b>Students to complete text book questions – STUDENT’S BOOK 2 - Textbook Questions – Page 95, 97 and 101</b>
<b>B2- Wednesday– 5<sup>th</sup> period(Zoom)</b>	<b>Students able to</b> <ul style="list-style-type: none"> <li>● <b>Identify</b> stages of restriction mapping &amp; Sanger method in gene sequencing</li> <li>● <b>Explain</b> role restriction mapping &amp; Sanger method in gene sequencing</li> <li>● <b>Evaluate use of</b>, Restriction mapping &amp; Sanger method in gene sequencing</li> </ul>

**Resources:** Boardworks & PowerPoint - Analysis of Genome & Video link

<https://www.youtube.com/watch?v=FF8PL8kQVqI>

[https://www.youtube.com/watch?v=-QIMkQ4E\\_wE](https://www.youtube.com/watch?v=-QIMkQ4E_wE)

[https://www.youtube.com/watch?v=-QIMkQ4E\\_wE&t=52s](https://www.youtube.com/watch?v=-QIMkQ4E_wE&t=52s)

**Students to complete text book questions – STUDENT’S BOOK  
2 –Exam Style Questions - Page 104, 105**