

## YEAR 11 G & H – BIOLOGY (IGCSE)

WEEK 12 (15<sup>th</sup> Nov to 19<sup>th</sup> November)

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

### Topics 18 : Genes and inheritance.

**L.O.:** Describe patterns of monohybrid using a genetic diagram with reference to co-dominance, multiple alleles and gender. Interpret pedigree diagrams and explain and polygenic inheritance.

<b>Sunday- 4<sup>th</sup> period</b>	<p><b>Zoom:</b> Describe the inheritance with reference to incomplete, co-dominance and multiple alleles.</p> <p><a href="https://www.youtube.com/watch?v=Bo1rllFcehM">https://www.youtube.com/watch?v=Bo1rllFcehM</a></p> <p><a href="https://www.youtube.com/watch?v=9O5JQqlngFY">https://www.youtube.com/watch?v=9O5JQqlngFY</a></p> <p><u>Textbook page : 249- 260</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>•List few examples of dominance, incomplete dominance &amp; co-dominance traits in organisms .</li><li>•Describe the inheritance of the ABO blood groups.</li><li>•Explain patterns of monohybrid using a genetic diagram with reference to incomplete dominance.</li></ul>
<b>Monday- 7<sup>th</sup> period</b>	<p><b>Zoom:</b> Describe how the sex of offspring is determined using a genetic diagram.</p> <p><a href="https://www.youtube.com/watch?v=gDYRH08S-Z4&amp;t=114s">https://www.youtube.com/watch?v=gDYRH08S-Z4&amp;t=114s</a></p> <p><u>Textbook page : 249- 260</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>•Identify the structure of a chromosome.</li><li>•Describe that the X and Y chromosomes are the sex hormones .</li><li>•Explain how the sex of offspring is determined at fertilisation, using genetic diagrams.</li></ul>
<b>Tuesday – 3<sup>rd</sup> and 4<sup>th</sup> period</b>	<p><b>Zoom:</b> Describe how the sex of offspring is determined at fertilisation, using genetic diagrams and Pedigree Concepts on Analysis. <b>Understand</b> that most phenotypic features are the result of polygenic inheritance rather than single genes.</p> <p><a href="https://www.youtube.com/watch?v=YhRxoA_49m8">https://www.youtube.com/watch?v=YhRxoA_49m8</a></p> <p><a href="https://www.youtube.com/watch?v=gDYRH08S-Z4">https://www.youtube.com/watch?v=gDYRH08S-Z4</a></p>

	<p><a href="https://www.youtube.com/watch?v=jibL4HvhgQg">https://www.youtube.com/watch?v=jibL4HvhgQg</a></p> <p>Textbook page : 249- 260</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>Define</b> the term polygenic inheritance. ●<b>Explain</b> the interpretation of family pedigrees .●<b>Interpret</b> pedigree charts linked with inheritance ●<b>Explain</b> that most phenotypic features are the result of polygenic inheritance rather than single genes.</li> </ul>
<b>Wednesday – 5<sup>th</sup> period</b>	<p><b>GC:</b> Students complete WS questions on Genetic diagrams and Pedigree and turn in their work on GC</p> <p><b>Resources:</b> Worksheet</p>

## **YEAR 11 A/D/E BIOLOGY (GCSE)**

**WEEK 12 (15<sup>th</sup> November to 19<sup>th</sup> November)**

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

**Topics - SB7h –Osmoregulation & SB7i-The kidneys**

**L.O** – Explain the effect of ADH on the permeability of the collecting duct in regulating the water content of the blood & the treatments for kidney failure, including kidney dialysis and organ donation. **Core Practical:** Investigate the relationship between organisms and their environment using field-work techniques, including quadrats and belt transects

<b>Sunday-6<sup>th</sup> period(girls)</b>	<p><b>Zoom session-The effect of ADH on the permeability of the collecting duct in regulating the water content of the blood</b></p> <p><b>Resources</b></p> <p><a href="https://www.youtube.com/watch?v=yXWISve_7Uw">https://www.youtube.com/watch?v=yXWISve_7Uw</a></p> <p><b>Students able to</b></p> <ul style="list-style-type: none"> <li>●Predict the changes in level of ADH on a hot day &amp; cold day</li> <li>●Describe the role of ADH in urine formation. ●.Describe negative feedback mechanism involved in osmoregulation.</li> </ul> <p><b>Discussion of textbook questions.(page 158 &amp; 159)</b></p>
<b>Monday - 3<sup>rd</sup> period(girls)</b>	<p><b>Zoom session</b> – The treatments for kidney failure, including kidney dialysis and organ donation</p> <p><b>Resources</b></p> <p><a href="https://www.youtube.com/watch?v=IQKQ4eoKfTg">https://www.youtube.com/watch?v=IQKQ4eoKfTg</a></p> <p>Students able to</p> <ul style="list-style-type: none"> <li>●Recall remedial measures of kidney problems.</li> <li>●Explain the working of the dialysis machine.</li> <li>●Compare the use of kidney transplant with that of dialysis.</li> </ul>

	<ul style="list-style-type: none"> <li>● Identify advantages &amp; disadvantages of kidney transplant &amp; dialysis.</li> </ul> <p><b>Discussion of textbook questions.(page 156 &amp; 157)</b></p>
<b>Tuesday-7<sup>th</sup> &amp; 8<sup>th</sup> period(girls)</b>	<p><b>Zoom session</b> -Discussion of Core practical-Quadrats &amp; transects.</p> <p><b>Resources</b>  <a href="https://www.youtube.com/watch?v=9BtFuHwvBpk">https://www.youtube.com/watch?v=9BtFuHwvBpk</a></p> <p><b>Students able to</b></p> <ul style="list-style-type: none"> <li>● Plan the use of quadrat &amp; transect for sampling.</li> <li>● Record the data obtained in a suitable table</li> <li>● Analyse &amp; interpret the data obtained</li> <li>● Compare the data obtained to secondary evidence collected.</li> </ul> <p><b>Students do Exam style questions on Pg .183 related to core practical being discussed .</b></p>
<b>Wednesday-7<sup>th</sup> period (girls)</b>	<p><b>Google Classroom</b></p> <p><b>Students to complete Exam style questions Pg .183 related to core practical being discussed and turn in the work in GC .</b></p>

## **YEAR 11 B/C/F- BIOLOGY (GCSE)**

**WEEK 12 (15<sup>th</sup> November to 19<sup>th</sup> November)**

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

**Topics - SB7h –Osmoregulation & SB7i-The kidneys**

**L.O** – Explain how the structure of the nephron is related to its function in filtering the blood and forming urine, the effect of ADH on the permeability of the collecting duct in regulating the water content of the blood Describe the treatments for kidney failure, including kidney dialysis and organ donation. **Core Practical:** Investigate the relationship between organisms and their environment using field-work techniques, including quadrats and belt transects

<b>Sunday-8<sup>th</sup> period(boys)</b>	<p><b>Zoom session-Urine formation</b></p> <p><b>Resources:</b>  <a href="https://www.youtube.com/watch?v=zVzgswdRRHA">https://www.youtube.com/watch?v=zVzgswdRRHA</a></p> <p><b>Students able to</b></p> <ul style="list-style-type: none"> <li>● Name the processes involved in urine formation.</li> <li>● Locate the place where ultrafiltration &amp; reabsorption of glucose water takes place .</li> </ul> <p><b>Students to complete Textbook questions page 156 &amp;158</b></p>
<b>Tuesday -5<sup>th</sup> period (boys)</b>	<p><b>Zoom session-The effect of ADH on the permeability of the collecting duct in regulating the water content of the blood</b></p> <p><b>Resources</b>  <a href="https://www.youtube.com/watch?v=yXWISve_7Uw">https://www.youtube.com/watch?v=yXWISve_7Uw</a></p> <p><b>Students able to</b></p> <p>Predict the changes in level of ADH on a hot day &amp; cold day.</p>

	<ul style="list-style-type: none"> <li>●Describe the role of ADH in urine formation.</li> <li>●.Describe negative feedback mechanism involved in osmoregulation</li> </ul> <p><b>Students to complete Textbook questions page 158</b></p>
<b>Wednesday-6<sup>th</sup> period (boys)</b>	<p><b>Zoom session</b> –Kidney failure ,Organ Donation</p> <p><b>Resources</b>  <a href="https://www.youtube.com/watch?v=IQKQ4eoKfTg">https://www.youtube.com/watch?v=IQKQ4eoKfTg</a>  Students able to</p> <ul style="list-style-type: none"> <li>●Recall remedial measures of kidney problems.</li> <li>●Explain the working of the dialysis machine.</li> <li>●Compare the use of kidney transplant with that of dialysis.</li> <li>●Identify advantages &amp; disadvantages of kidney transplant &amp; dialysis.</li> </ul> <p><b>Students to complete Textbook questions page 159</b></p>
<b>Thursday – 5 th period (boys)</b>	<p><b>Zoom session</b> -Discussion of Core practical-Quadrats &amp; transects.</p> <p><b>Resources</b>  <a href="https://www.youtube.com/watch?v=9BtFuHwvBpk">https://www.youtube.com/watch?v=9BtFuHwvBpk</a></p> <p><b>Students able to</b></p> <ul style="list-style-type: none"> <li>●Plan the use of quadrat &amp; transect for sampling.</li> <li>●Record the data obtained in a suitable table</li> <li>● Analyse &amp; interpret the data obtained</li> <li>●Compare the data obtained to secondary evidence collected.</li> </ul>
<b>Thursday – 6 th period (boys)</b>	<p><b>Google Classroom</b></p> <p><b>Students to complete Exam style questions Pg .183 related to core practical being discussed and turn in the work in GC .</b></p>

