

## IB Biology – Summer Packet 2020

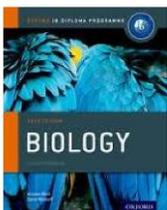
Greetings IB Biology Students!

It is assumed that you are taking this course because you are interested in the world of biology. To foster and grow that interest over the summer you will choose 2 fun and engaging activities for each of the first two units of the IB Biology course covered in the 11th grade year.

You should complete at least two activities on the choice board for each topic (Molecular Biology and Cell Biology). Document your Summer Homework effort in a science notebook and when we return to school, you will be asked to share your experiences with your classmates and teacher. You are encouraged to make it engaging.

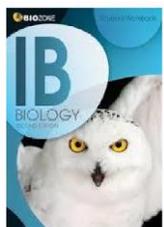
I will also be posting a short survey on Google Classroom to help me learn more about you as individuals and future students.

Finally, regarding the IB Biology Course textbook and Student Workbook - Students are required to purchase the following two course books:



1. IB Biology Course Book (2014 Edition); Oxford University Press; ISBN: 9780198392118

This book will be available for purchase on the Prout Bookstore site or can be purchased directly from Oxford University Press or from Amazon.com or other textbook purchasing websites. An electronic version of the textbook is also available for “rent” on a yearly basis.



2. IB Biology (2nd Edition) Student Workbook Biozone International Ltd; ISBN: 9781927173930

This book will also be available for purchase on the Prout Bookstore site or can be purchased directly from Biozone at the following link: <https://www.thebiozone.com/products/ib/ib-biology-2nd-edition-student-workbook-biozone/>

Both books are REQUIRED for IB Biology students. As Prout is the only school in the state of Rhode Island to offer the IB curriculum, these books will NOT be available via your local town school district. It is expected that students purchase and receive their textbook and workbook before the first day of school.

If you have any questions regarding these books or the summer work assignments, please contact me via email at [jwurzbacher@theproutschool.org](mailto:jwurzbacher@theproutschool.org). I look forward to getting to know all of you over the next 2 years!

Enjoy the summer!

Best regards,

Mrs Wurzbacher

# IB Biology: Summer Choice Board

**Overview:** To foster and grow your interest in biology, you will choose 2 fun and engaging activities for each of our first two units of the IB Biology course.

- You should complete at least two activities per row.
- Document your Summer Homework effort: Record a reflection in a science notebook or nature journal.
- When we return to school, you will be asked to share your experiences with your classmates and teacher. You are encouraged to make it engaging.

**Learning Target:** I can engage in activities related to the IB Biology curriculum in order to deepen my conceptual understanding of concepts.

UNITS IB Bio HL 11th Topics	Activity Choice - Choose 1 in each row & be ready to share out in the Fall (1st day back)			
	Something to Experience	Something to Read	Something to Watch	Something to Listen to
<p><b>1. CELL BIOLOGY</b> <i>The cell is the unit of life and performs all the functions of life.</i></p> <p>Do 1 activity in the <b>CELL BIOLOGY</b> row ⇒</p>	<p><i>Create an art piece</i> about cells in your science notebook or nature journal. OR</p> <p><i>Engage in the Interactive Click &amp; Learn:</i> <a href="#">The Eukaryotic Cell Cycle &amp; Cancer</a></p>	<p><i>Read</i> <a href="#">The Immortal Life of Henrietta Lacks</a> (check out from the library, free on audible) OR</p> <p><i>Read</i> the <a href="#">science pages of news</a> websites (see list below) about Cells &amp; Stem Cells!</p>	<p><i>Ted Talk:</i> <a href="#">The New Software Revolution: Programming Biological Cells</a></p>	<p><i>Listen</i> to <a href="#">Science Friday</a> and find a audio news topic on Cell Biology, such as <a href="#">Unlocking Blood-Forming Stem Cells for Personalized Therapies</a></p>
<p><b>2. MOLECULAR BIOLOGY</b> <i>Biological systems use energy and molecular building blocks to grow, reproduce &amp; maintain dynamic homeostasis.</i></p> <p>Do 1 activity in the <b>MOLECULAR BIOLOGY</b> row ⇒</p>	<p><i>Record an original music video</i> about molecular biology concepts. See example, <a href="#">The Molecular Shape of You</a>. (Acapella Science) OR</p> <p><i>Engage in an Interactive</i> from Learn Genetics: <a href="#">Gel Electrophoresis Interactive</a> (Allow Adobe Flash)</p>	<p><i>Read</i> <a href="#">The Hidden Life of Trees</a> by Peter Wohlleben (Book) OR</p> <p><i>Read</i> the <a href="#">science pages of news</a> websites (see list below) to see what Molecular Biology breakthroughs are happening!</p>	<p><i>TedTalk:</i> <a href="#">How Designing New Enzymes could Change the World</a></p>	<p><i>Listen</i> to <a href="#">Science Friday</a> and find a audio news topic on Molecular Biology, such as bioluminescence - <a href="#">How Humboldt Squid Talk To Each Other In The Dark</a></p>
<p><b>Science News Article Websites:</b></p>	<p>1) <a href="#">BBC Science News</a> 2) <a href="#">Nature News</a>,</p>	<p>3) <a href="#">National Geographic News</a> 4) <a href="#">Science Magazine News</a>,</p>	<p>5) <a href="#">Scientific American News</a> 6) <a href="#">Science News for Students</a></p>	<p>7) <a href="#">Discover Magazine Science News</a>.</p>