**HONORS BIOLOGY/ZEDALIS/THE BISHOP’S SCHOOL/2022-2023**

**UNIT 1 SYLLABUS: INTRODUCTION TO HONORS BIOLOGY AND CHEMISTRY OF LIFE**

OpenStax text, Chapters 1-2

**Essential Questions:**

* *What are the characteristics of living organisms?*
* *What biological molecules are necessary for organisms to grow, reproduce, and maintain organization and homeostasis?*
* *How do the subcomponents biological molecules determine properties?*

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| **DAY/DATE** | **Honors I**  **Period 2**  **Period 3 (LAB, A&E)** | **Honors II**  **Period 4**  **Period 3 (LAB, C&F)** | **Honors III**  **Period 6**  **Period X (LAB, A&E)** |
| DAY A  Opening Day  Thurs., 8/18/22  **\*Modified Schedule** | Period 2: 10:30-11:30  Period 3: 11:30-12:30 (LAB)  Strange Facts About Biology  Welcome to Honors Bio!  Is the apple living?  HW: READ OpenStax, Chapter 1  HW: OS Reading Assignment: Chapter 1: The Study of Life (DUE: 8/22/22) | Period 4: 1:10-2:10  Strange Facts About Biology  Welcome to Honors Bio!  Is the apple living?  HW: READ OpenStax, Chapter 1  HW: OS Reading Assignment: Chapter 1: The Study of Life (DUE: 8/22/22) | Period X: 2:10-2:55 (LAB)  Strange Facts About Biology  Welcome to Honors Bio!  Is the apple living?  HW: READ OpenStax, Chapter 1  HW: OS Reading Assignment: Chapter 1: The Study of Life (DUE: 8/19/22) |
| DAY B  Fri., 8/19/22  **\*Modified Schedule** | XXXXXXX | XXXXXXX | Period 6: 11:00-12:00  Chemistry Review: Atomic Structure, Bonding  HW: OS Reading Assignment: Chapter 2: The Chemical Foundation of Life (DUE: 8/23/22) |
| DAY C  Mon., 8/22/22 | Period 2: 8:20-9:30  Chemistry Review: Atomic Structure, Bonding  HW: OS Reading Assignment: Chapter 2: The Chemical Foundation of Life (DUE: 8/23/22) | Period 3: (LAB): 9:30-10:40  Milk Break  Period 4: 10:55-12:05  Chemistry Review: Atomic Structure, Bonding  Properties of Water; Acids and Bases  **Art Activity: How does water travel up a 300’ redwood tree?**  HW: OS Reading Assignment: Chapter 2: The Chemical Foundation of Life (DUE: 8/24/22) | XXXXXXX |
| DAY D  Tues., 8/23/22 | Period 2: 1:45-2:55  Properties of Water; Acids and Bases  **Art Activity: How does water travel up a 300’ redwood tree?** | XXXXXXX | Period 6: 8:20-9:30  Properties of Water; Acids and Bases  **Art Activity: How does water travel up a 300’ redwood tree?** |
| DAY E  Wed., 8/24/22 | Period 3: 8:20-9:30 (LAB)  **QUIZ:** Five Questions, Five Minutes (Chemistry)  Introduction, Carbon Atom, Functional Groups  Monomers and Polymers | Period 4: 9:30-10:40  **QUIZ:** Five Questions, Five Minutes (Chemistry)  Biochemistry I: Introduction, Carbon Atom, Functional Groups  Monomers and Polymers | Period 6: 12:05-1:15  Lunch Period X: 1:55-2:55 (LAB)  **QUIZ:** Five Questions, Five Minutes (Chemistry)  Introduction, Carbon Atom, Functional Groups Monomers and Polymers |
| DAY F  Th., 8/25/22 | Period 2: 11:50-1:00  Carbohydrates  LAB: Modeling a Carbohydrate | Period 3: 1:45-2:55 (LAB)  Carbohydrates  LAB: Modeling a Carbohydrate | XXXXXXX |
| DAY G  Fri., 8/26/22 | XXXXXXX | Period 4: 8:20-9:30  Lipids, Phospholipids, Proteins  HW: HW: OS Reading Assignment: Chapter 3: Biological Molecules (DUE: 8/31/22) | Period 6: 10:55-12:05  Carbohydrates  LAB: Modeling a Carbohydrate |
| DAY A  Mon., 8/29/22 | Period 2: 9:30-10:40  Milk Break  Period 3: 10:55-12:05 (LAB)  Lipids, Phospholipids, Proteins  HW: HW: OS Reading Assignment: Chapter 3: Biological Molecules (DUE: 8/31/22) | Period 4: 12:05-1:15  POGIL: “Protein Structure” | Period X: 1:55-2:55 (LAB)  Lipids, Phospholipids, Proteins  HW: HW: OS Reading Assignment: Chapter 3: Biological Molecules (DUE: 8/31/22) |
| DAY B  Tues., 8/30/22 | XXXXXXX | XXXXXXX | Period 6: 10:40-11:50  POGIL: “Protein Structure” |
| DAY C  Wed., 8/31/22 | Period 2: 8:20-9:30  POGIL: “Protein Structure” | Period 3: 9:30-10:40 (LAB)  Milk Break  Period 4: 10:55-12:05  **QUIZ:** Five Questions, Five Minutes  Case Study: “The Chemistry of Straight and Curly Hair”  Review for assessment | XXXXXXX |
| DAY D  Th., 9/01/22 | Period 2: 1:45-2:55  **QUIZ:** Five Questions, Five Minutes  Case Study: “The Chemistry of Straight and Curly Hair” | XXXXXXX | Period 6: 8:20-9:30  **QUIZ:** Five Questions, Five Minutes  Case Study: “The Chemistry of Straight and Curly Hair” |
| DAY E  Fri., 9/02/22 | Period 3: 8:20-9:30 (LAB)  **ASSESSMENT: BIOCHEMISTRY** | Period 4: 9:30-10:40  **ASSESSMENT: BIOCHEMISTRY** | Period 6: 12:05-1:15  Lunch  Period X: 1:55-2:55  **ASSESSMENT: BIOCHEMISTRY**  TBS by JZ |
| **LABOR DAY**  **MONDAY 9/05/22** | XXXXXXX | XXXXXXX | XXXXXXX |
| DAY F  Tues., 9/06/22  **Special Schedule** | Period 2: 10:55-12:05  Introduction to Cells | Period 3: 12:05-1:15(LAB)  Lunch  Period 4: 1:45-2:55  Introduction to Cells  TBA by JZ | XXXXXXX |
| DAY G  Wed., 9/07/22  **Special Schedule**  **RETREATS 09/08/22 AND 09/09/22** | XXXXXXX | XXXXXXX | Period 6: 9:30-10:40  Introduction to Cells |