# IB Biology HL - Y1\_S1 Prep Sheet

## **Exam Details:**

Date - Tuesday, December 12, 2017 Time - 13:00 - 15:00 Location - Auxi Gym

#### **Format Guide:**

Paper	Question Type	Number of Questions	Number of Marks	Number of Minutes
1	Multiple Choice*	35	35	45
2/3	Short Answer & Free Response	13 (multiple parts)	50	75

<sup>\*</sup>The Multiple Choice section of the exam is to be answered on the accompanying answer sheet.

## **Areas of Focus:**

## Topic 4 - Ecology Practice Qs (p.214-215)

#### 4.1 - Species to Ecosystems (p.171-184)

p.176-177 Challenge Yourself (Interdependence)

p.178 Fieldwork (Quadrat Sampling)

p.179-180 Worked Example (Chi Squared)

p.182 Challenge Yourself (Feeding Methods)

p.183 Fieldwork (Mesocosms)

p.184 Exercises

#### 4.2 - Energy Flow (p.184-190)

p.189 Worked Example (Pyramid of Energy)

p.190 Exercises

#### 4.3 - Carbon Cycling (p.191-202)

p.201 Challenge Yourself (System Diagram)

p.201 Exercises

p.202 Worked Example (Graph Analysis)

#### 4.4 - Climate Change (p.203-)

p.207 Challenge Yourself (Graph Analysis)

p.213 Challenge Yourself (Carbon Footprint)

p.214 Exercises

## **Topic 2 - Molecular Biology Practice Qs (p.110)**

## 2.1 - Molecules to Metabolism (p.51-60)

p.53 Challenge Yourself (Identifying Macromolecules)

p.59-60 Challenge Yourself (Drawing Macromolecules)

p.60 Exercises p.60

## 2.2 - Water (p.61-67)

p.67 Exercises

#### 2.3 - Carbohydrates and Lipids (p.67-74)

p.74 Challenge Yourself (Calculating BMI)

p.74 Exercises

#### 2.4 - Proteins (p.74-80)

p.77 Challenge Yourself (Amino Acids)

p.80 Exercises p.80

## 2.5 - Enzymes (p.80-85)

p.84-85 Fieldwork (Enzyme Activity)

p.85 Exercises

## O.C - Ecology & Conservation Practice Qs (p.713-715)

#### C.1 - Species & Communities (p.640-652)

p.646 Challenge Yourself (Food Chains)

p.649 Challenge Yourself (Interactions)

p.650-651 Challenge Yourself (Niches)

p.652 Exercises

#### C.2 - Communities & Ecosystems (p.653-670)

p.658 Challenge Yourself (Trophic Levels)

p.663 Challenge Yourself (Graph Analysis)

p.666 Challenge Yourself (Biomes)

p.667-668 Worked Examples (Gersmehl Diagrams)

p.668 Challenge Yourself (Gersmehl Diagrams)

p.670 Exercises

#### C.3 - Human Impact (p.671-682)

p.678 Challenge Yourself (Eradication Programs)

p.679-681 Challenge Yourself (Invasive Species)

p.682 Exercises

#### C.4 - Conservation of Biodiversity (p.682-695)

p.686-688 Fieldwork (Biodiversity)

p.693-694 Challenge Yourself (Graph Analysis)

p.695 Challenge Yourself (Graph Analysis)

p.695 Exercises

#### C.5 - Population Ecology (p.696-706)

p.699 Challenge Yourself (Data Analysis)

p.701 Fieldwork (Population Growth)

p.702 Worked Examples (Lincoln's Index)

p.706 Challenge Yourself (Graph Analysis)

p.706 Exercises

### C.6 - Nitrogen & Phosphorus Cycles (p.707-712)

p.712 Fieldwork (Soil Nutrients)

p.712 Exercises

## Topic 8 - Metabolism, Cell Respiration & Photosynthesis

## 8.1 - Metabolism (p.351-356)

p.355-356 Worked Example (Enzyme Inhibition)

p.356 Exercises

#### **Reminders:**

- Get started preparing **NOW** so that you see everything **OFTEN** and **REPEATEDLY**.
- ☐ Use your notes, the online text and complete the **Challenge Yourself**, **Exercises** and **Practice Qs**.
- ☐ Use the videos available on the course website to help visualize the biological processes.
- Use your classmates and your teacher as a resource. We are all in this together!
- ☐ GOOD LUCK!! :D