

<b>IB Sport &amp; Exercise Science</b>	
<b>Topic 2: Exercise Physiology</b> – revision summary	
<b>2.1 Structure and function of the Ventilatory System</b>	complete
2.1.1 List the principal structures of the ventilatory system	
2.1.2 Outline the functions of the conducting airways	
2.1.3 Define respiratory terms; <i>pulmonary ventilation, total lung capacity (TLC), vital capacity (VC), tidal volume (TV), expiratory reserve volume (ERV), inspiratory reserve volume (IRV) and residual volume (RV).</i>	
2.1.4 Explain the mechanics of ventilation in the human lungs	
2.1.5. Describe nervous and chemical control of ventilation during exercise.	
2.1.6 Outline the role of hemoglobin in oxygen transportation	
2.1.7 Explain the process of gaseous exchange at the alveoli	

<b>IB Sport &amp; Exercise Science</b>	
<b>Topic 2: Exercise Physiology</b> – revision summary	
<b>2.2 Structure and function of the cardiovascular system</b>	complete
2.2.1 State the composition of blood	
2.2.2 Distinguish between the functions of erythrocytes, leucocytes and platelets.	
2.2.3 Describe the anatomy of the heart with reference to the heart chambers, valves and major blood vessels.	
2.2.4 Describe the intrinsic and extrinsic regulation of heart rate and the sequence of excitation of the heart muscle.	
2.2.5. Outline the relationship between the pulmonary and systemic circulation.	
2.2.6 Describe the relationship between heart rate, cardiac output and stroke volume at rest and during exercise.	
2.2.7 Analyze cardiac output, stroke volume and heart rate data for different populations at rest and during exercise.	
2.2.8 Explain cardiovascular drift.	
2.2.9 Define the terms <i>systolic</i> and <i>diastolic blood pressure</i> .	
2.2.10 Analyze systolic and diastolic blood pressure data at rest and during exercise.	
2.2.11 discuss how systolic and diastolic blood pressure respond to static and dynamic exercise	
2.2.12 compare the distribution of blood at rest and blood during exercise	
2.2.13 Describe the cardiovascular adaptations resulting from endurance exercise training.	
2.2.14 Explain maximal oxygen consumption.	
2.2.15 Discuss the variability of maximal oxygen consumption in selected groups.	
2.2.15 Discuss the variability of maximal oxygen consumption with different modes of exercise	