

IGCSE Biology (9-1) Specification 2(g)

(g) Gas exchange

Students should:

Flowering plants

2.40B understand the role of diffusion in gas exchange

2.41B understand gas exchange (of carbon dioxide and oxygen) in relation to respiration and photosynthesis

2.42B understand how the structure of the leaf is adapted for gas exchange

2.43B describe the role of stomata in gas exchange

2.44B understand how respiration continues during the day and night, but that the net exchange of carbon dioxide and oxygen depends on the intensity of light

2.45B practical: investigate the effect of light on net gas exchange from a leaf, using hydrogen-carbonate indicator

Humans

2.46 describe the structure of the thorax, including the ribs, intercostal muscles, diaphragm, trachea, bronchi, bronchioles, alveoli and pleural membranes

2.47 understand the role of the intercostal muscles and the diaphragm in ventilation

2.48 explain how alveoli are adapted for gas exchange by diffusion between air in the lungs and blood in capillaries

2.49 understand the biological consequences of smoking in relation to the lungs and the circulatory system, including coronary heart disease

2.50 practical: investigate breathing in humans, including the release of carbon dioxide and the effect of exercise

Dr. James Peros (PhD, BS, BS, BA, AS, CED)

Contact: James@YourEducationPlus.com Site: www.YourEducationPlus.com

Facebook: <https://www.facebook.com/YourEducationPlus/>