

Chapter 18 – Oxidative Phosphorylation

Objective	In-text reading	Pre-class materials/activities	In-class materials/activities	Practice problems from text
1. Describe and explain the relationship between electron flow and ATP production in the mitochondrion	18.2	Ch 18 – Oxidative Phosphorylation (Hayden Lecture) ATP synthase: Structure and Function (simulation)	S35 – Oxidative Phosphorylation	S35 – Post Activity 4 th Edition: #19, 21,
2. Distinguish between coupled and uncoupled mitochondria	18.3	Ch 18 – Oxidative Phosphorylation (Hayden Lecture) Introduction to Mitochondrial Diseases (HarvardX Lecture)	S35 – Oxidative Phosphorylation	S35 – Post Activity 4 th Edition: #22, 23,
3. Interpret ¹⁴ C-CO ₂ data from research studies and explain the data in the context of glucose metabolism and the needs of the cell.	18.4	Ch 18 – Oxidative Phosphorylation (Hayden Lecture)	S35 – Oxidative Phosphorylation	S35 – Post Activity 4 th Edition: #29
4. Identify and utilize the diverse backgrounds of group members to solve interdisciplinary problems.		How we will fight the next deadliest virus (TED talk)	S35 – Oxidative Phosphorylation	

See additional practice problem set on Sapling Online.