

## Chapter 14 – Introduction to Metabolism

Objective	In-text reading	Pre-class materials/activities	In-class materials/activities	Practice problems from text
1. Interpret the impact of different $K_M$ values in real situations.	15.1-15.3	Ch. 15 – Glycolysis and regulation of glycolysis (Hayden Lecture)	S25 – Enzymes in Glycolysis	S25 Post Activity 4 <sup>th</sup> Ed: 1, 3, 5,
2. Describe how isozymes and allosteric effectors play important roles in regulation of pathways such as glycolysis.	15.1-15.3	Ch. 15 – Glycolysis and regulation of glycolysis (Hayden Lecture)	S25 – Enzymes in Glycolysis S26 – Regulation of Glycolysis and Gluconeogenesis.	S25 Post Activity
3. Communicate using graphics. Specifically, create a graph from information provided as a text.	15.1-15.3	The Beauty of Data Visualization (TED talk)	S25 – Enzymes in Glycolysis	S25 Post Activity
4. Understand the roles of muscle and liver in glycolysis and gluconeogenesis.	15.1-15.3	Ch. 15 – Glycolysis and regulation of glycolysis (Hayden Lecture)	S26 – Regulation of Glycolysis and Gluconeogenesis.	S26 Post Activity
5. Develop the ability to think critically about the link between the macroscopic (organ function) and the microscopic (glucose metabolism)	15.1-15.3	Ch. 15 – Glycolysis and regulation of glycolysis (Hayden Lecture)	S26 – Regulation of Glycolysis and Gluconeogenesis.	S26 Post Activity 4 <sup>th</sup> Ed: 14
6. Manage team members with different levels of different discipline knowledge	15.1-15.3	Connected, but alone? (TED Talk) 10 ways to have a better conversation (TED talk)	S26 – Regulation of Glycolysis and Gluconeogenesis.	S26 Post Activity
7. Describe reciprocal regulation in words and with plots	15.4	Ch. 15 – Glycolysis and regulation of glycolysis (Hayden Lecture)	S27 – Metabolic and Hormonal Control in Glycolysis and Gluconeogenesis.	S27 Post Activity
8. Compare and contrast metabolic and hormonal control regulation.	15.4	Ch. 15 – Glycolysis and regulation of glycolysis (Hayden Lecture)	S27 – Metabolic and Hormonal Control in Glycolysis and Gluconeogenesis.	S27 Post Activity 4 <sup>th</sup> Ed: 15, 16
9. Compare the roles and regulation of these pathways in muscle and liver	15.4	Ch. 15 – Glycolysis and regulation of glycolysis (Hayden Lecture)	S27 – Metabolic and Hormonal Control in Glycolysis and Gluconeogenesis.	S27 Post Activity

*I was having a hard time finding problems in the text book for practice, so I created a practice activity on Sapling*