C1.1 Enzymes and metabolism (HL)

What the Cell · DP Biology · note-taking sheet · HL statements C1.1.11–17

Name _____ **Date** _____

How to use this sheet: go through the slides and videos with it, then close them and write from memory. Use your own words and add page numbers from the book (pp. 396–404) where you want more detail.

Guiding questions. How do enzymes work with other molecules? Which parts of metabolism depend on one another?

C1.1.11–13 Metabolism

	Intracellular	**Extracellular**
Where		
Examples		

Why does metabolism always release heat? How do endotherms use it?

Sketch a linear pathway and a cyclical pathway, naming an example of each.

C1.1.14–15 Inhibition

	Competitive	**Non-competitive**
Binding site		
Effect of more substrate		
Example		

Sketch rate against substrate concentration with no inhibitor, a competitive inhibitor and a non-competitive inhibitor.

C1.1.16–17 Feedback and mechanism-based inhibition

Draw the isoleucine pathway and show where the feedback acts.

How does penicillin inhibit transpeptidase? How can bacteria become resistant?

Before you finish

Tick the ones you can explain without notes. Circle anything to ask about.

- ☐ Intracellular
- ☐ Extracellular
- ☐ Metabolic heat
- ☐ Linear pathway
- ☐ Cyclical pathway
- ☐ Allosteric site
- ☐ Statins
- ☐ Feedback inhibition
- ☐ Isoleucine
- ☐ Penicillin
- ☐ Transpeptidase
- ☐ Resistance