C1.2 Cell respiration (HL)

What the Cell · DP Biology · note-taking sheet · HL statements C1.2.7–17

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. 412–424) where you want more detail.

Guiding questions. What do hydrogen and oxygen contribute to releasing energy in cells? How is energy shared out and used within cells?

C1.2.7–10 Redox, glycolysis and anaerobic respiration

Oxidation and reduction in terms of electrons and hydrogen. What does NAD do?

Flow chart of glycolysis: phosphorylation, lysis, oxidation, ATP formation. Net yield.

	Humans	**Yeast**
Hydrogen acceptor		
Products		
Uses		

C1.2.11–12 Link reaction and Krebs cycle

Draw the link reaction and the Krebs cycle. Mark each decarboxylation and each oxidation.

C1.2.13–16 Electron transport and chemiosmosis

Draw part of the inner membrane with the carriers, the proton pumping, ATP synthase and oxygen. Annotate each step.

C1.2.17 Lipids and carbohydrates

	Carbohydrate	**Lipid**
Energy per gram		
Why		
Entry point		
Anaerobic use?		

Before you finish

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

- ☐ Redox
- ☐ NAD
- ☐ Glycolysis
- ☐ Lactate
- ☐ Yeast
- ☐ Link reaction
- ☐ Krebs cycle
- ☐ Electron transport chain
- ☐ Proton gradient
- ☐ ATP synthase
- ☐ Oxygen
- ☐ Lipids