B1.1 Carbohydrates and lipids

What the Cell · DP Biology · note-taking sheet · SL statements B1.1.1–13

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. 181–204) where you want more detail.

Guiding questions. How do differences in form give carbohydrates and lipids different functions? In what ways do lipids and carbohydrates differ as energy stores?

B1.1.1–3 Carbon and polymers

Why can carbon form so many compounds?

	Condensation	**Hydrolysis**
What happens		
Water		
Example		

B1.1.4 Monosaccharides

How do you tell a pentose from a hexose? Link each property of glucose to how it is used.

B1.1.5–6 Polysaccharides

	Starch	**Glycogen**	**Cellulose**
Monomer			
Where			
Shape			
Why it suits its use			

B1.1.7 Glycoproteins

What is a glycoprotein? How do ABO antigens show its role?

B1.1.8–11 Lipids

Draw a simplified triglyceride and phospholipid. Show where water is released.

Fatty acid	C=C bonds	Melting point	Where common
Saturated			
Mono-unsaturated			
Poly-unsaturated			

Why are triglycerides good for long-term storage and insulation?

B1.1.12–13 Membranes

Draw a section of a bilayer and label it. Include the term **amphipathic** in your explanation. Why can steroids pass through it?

Before you finish

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

- ☐ Carbon bonding
- ☐ Condensation and hydrolysis
- ☐ Pentoses and hexoses
- ☐ Starch and glycogen
- ☐ Cellulose
- ☐ ABO antigens
- ☐ Triglycerides
- ☐ Saturation
- ☐ Energy stores compared
- ☐ Bilayers and steroids