A1.2 Nucleic acids (HL)

What the Cell · DP Biology · note-taking sheet · HL statements A1.2.11–15

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. 25–33) where you want more detail.

Guiding questions. How do nucleic acids store information that can be inherited? Which features of DNA allow it to be copied accurately?

A1.2.11–12 Direction and pairing

Draw two antiparallel strands of four nucleotides each. Label the 5′ and 3′ ends, the phosphodiester bonds and the hydrogen bonds.

Process	Why direction matters
Replication	
Transcription	
Translation	

Why does a purine always pair with a pyrimidine?

A1.2.13 Nucleosomes

Sketch and label a nucleosome: histone core, DNA, linker DNA, H1 histone. Why do histones bind DNA? Why package DNA?

A1.2.14–15 Evidence

Hershey and Chase: method, results and conclusion.

Chargaff: what did he find, and which hypothesis did it falsify?

Before you finish

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

- ☐ 5′ and 3′ ends
- ☐ Antiparallel
- ☐ Purines
- ☐ Pyrimidines
- ☐ Nucleosome
- ☐ H1 histone
- ☐ Packing
- ☐ Hershey and Chase
- ☐ ^{35}S and ^{32}P
- ☐ Chargaff
- ☐ Tetranucleotide hypothesis