



Nucleic Acids

- 1
- 2
- 3
- 4
- 5

Nucleotides

D.N.A

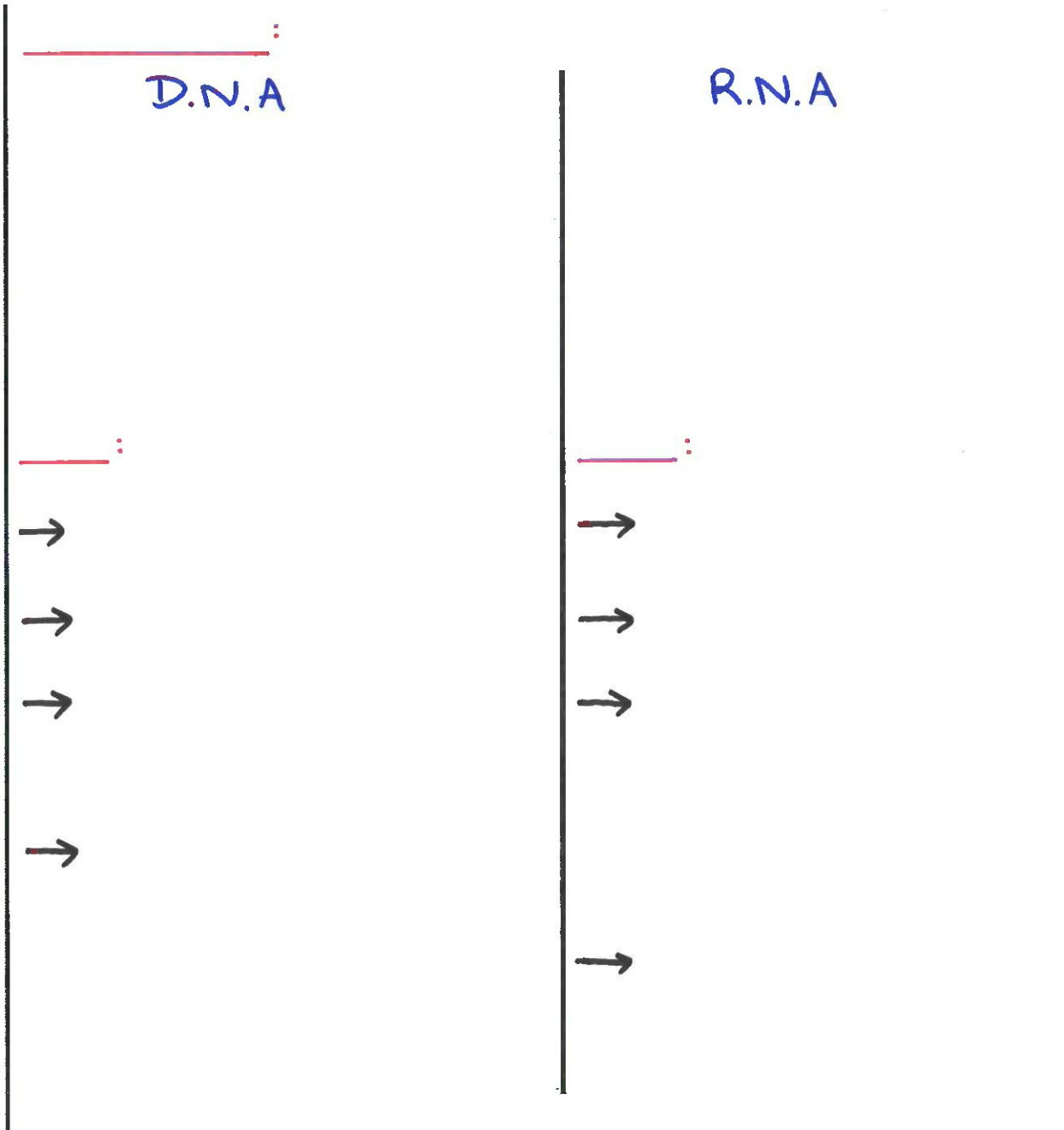
R.N.A

Polynucleotides

DNA

RNA

Phosphodiester
Bond





Universal

DNA is Universal, Non-Overlapping & Degenerate

1 2 3 4 5

Non-overlapping



Degenerate

Genome

Proteome

Transcription

Protein Synthesis

Translation





Semi-Conservative DNA Replication

- 1
- 2
- 3
- 4
- 5

DNA Helicase

Complementary
Base Pairing

DNA Polymerase

Phosphodiester
Bonds

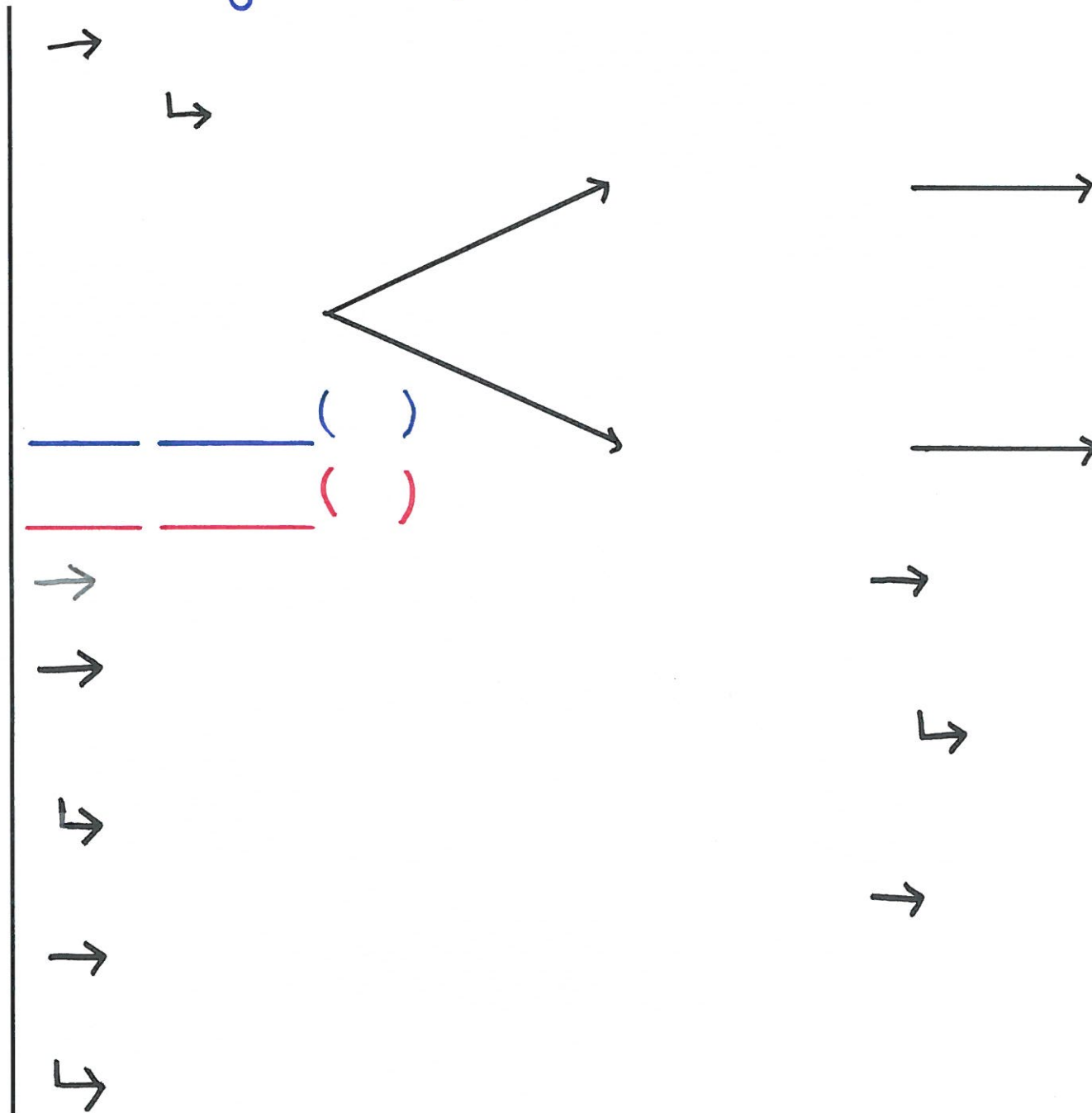
Anti-parallel





Proving DNA Replication is Semi-Conservative

- 1
- 2
- 3
- 4
- 5



Protein Synthesis : Transcription

1 2 3 4 5



TT

Exons

Splicing

DNA Helicase

Hydrogen Bonds

Complementary
Base Pairing

RNA Polymerase



Prokaryotes vs. Eukaryotes

Prokaryotes: →

→

Eukaryotes:

→



TT

Codon

Protein Synthesis - Translation

1 2 3 4 5



Anticodon





DNA & Protein Synthesis Key Terms

Pre-mRNA /
Primary mRNA

DNA Antisense Strand:



DNA Sense Strand



AQA + Edexcel =
OCR =

mRNA / mature
mRNA

AQA + Edexcel



OCR

