

### DNA

DNA double helix structure allows it

Stability

Simple Replication pattern

### RNA

Ribonucleic Acids

Transfer genetic information from DNA to the Ribosomes

Ribosomes are bodies Protein Factories

Read RNA to make Polypeptides (Proteins)

### GENES

A Gene is a sequence of **DNA Bases**

Genes code for a Polypeptide or RNA

Order of Bases in a Gene

Determines order of Amino Acids In a Polypeptide

### One Gene - One Polypeptide

A given gene has a very precise linear sequence that codes for the linear sequence of amino acids in one polypeptide molecule

### Glossary

#### Polypeptide

When two or more amino acids join together

### Gene - Polypeptide

Base sequence of a DNA molecule

Has a direct relationship to

The Amino Acid Sequence

Or Primary structure of a Polypeptide

#### Note:

Primary structure determines higher order structure which determines biological activity

### Transcription

How RNA molecules are synthesized

Uses DNA as a Template

One DNA strand is the template for RNA

### 2 Strands are called

**Template Strand**    **Non-Template Strand**

RNA synthesized on template strand

Successive addition of **Complementary Base Pairs**

Only short regions corresponding to genes are copied into RNA

They comes to a end at a termination sequence

Newly sythasised RNA leaves the DNA

DNA Helix reforms

Transcription Compete

### Structure of RNA

Ribose Sugar

Phosphate Group

Base

Bases are : **A, U, C, G**

#### Note:

**DNA** makes **RNA** makes a **Polypeptide**

### Steps in the Information Flow

Transcription	Translation
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of DNA makes RNA	of RNA makes Polypeptides
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### Transcription

The DNA base sequence is transcribed or copied

This makes a RNA molecule

RNA is a **Intermediate**

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