

3-5-14 DNA & Genetics

- DNA is a nucleic acid, a macromolecule that stores information.
- It consists of individual units called Nucleotides: a sugar, a phosphate group, and a nitrogen-containing base.
- DNA holds the instruction manual and the operating system for your body.
- Passed down from parents to offspring.

In EVERY cell

1 Structure

~~Helix~~ helix double



A-T
G-C > Bases

The order of the Bases is what holds the Genetic information.

2 Function

Gene definition

Genome definition makes up
chromosome definition

makes up

Allele - eye color is the gene the actual color is determined by the Allele.

Environment can change the DNA switch.

3-7-14

How genes work

Cook book - genetic code DNA

Index card - secretly coded RNA

Combine ingredients - In the Ribosome

Cookies - - - copy

DNA - RNA change all T-U

Transcription

1. unzip DNA

2. Take complement

3. Replace T-U

Vocabulary

Gene (23,000)

A part of DNA that codes for a certain characteristic

Genome (1)

Complete Set of DNA

Chromosome

long chain of genes that make up a genome.

46 chromosomes 23 pairs.

Allele

Different forms of the same gene.

Genotype

all the genes contained in an organism

Phenotype

the physical manifestation of the instructions

Codon

3 letter code of RNA