Text *n*°2

Nucleic acids essentially the "instructions" or "blueprints" of life. Deoxyribonucleic acid, or DNA, is the unique blueprints to make the proteins that give you your traits. Half of these blueprints come from your mother, and half from your father. Therefore, every person that has ever lived - except for identical twins - has his or her own unique set of blueprints - or instructions - or DNA. The nitrogen bases in a nucleic acid stick out from the backbone. There are four different types of bases: cytosine (C), adenine (A), guanine (G), and either thymine (T) in DNA, or uracil (U) in **RNA**. In DNA, bonds form between bases on the two **nucleotide** chains and hold the chains together. Each type of base binds with just one other type of base : cytosine always binds with guanine, and adenine always binds with thymine. These pairs of bases are called complementary base pairs. The binding of complementary bases allows DNA molecules to take their well-known shape, called a double helix. A double helix is like a spiral staircase. The double helix shape forms naturally and is very strong, making the two polynucleotide chains difficult to break apart.

DNA and RNA have different functions relating to the genetic code and proteins. Like a set of blueprints, DNA contains the genetic instructions for the correct sequence of amino acids in proteins. RNA uses the information in DNA to assemble the correct amino acids and help make the protein. The information in DNA is passed from parent cells to daughter cells whenever cells divide. The information in DNA is also passed from parents to offspring when organisms reproduce. This is how inherited characteristics are passed from one generation to the next.

Questions :

Part one : Read the text and answer the questions

1-Give a title to the text.

2-Give five keywords for the text.

3- Name the different types of nitrogen bases.

4- What is complementary base pairs ?

5- Give the definition of words in bold.

6- Find words from the text which have the same meaning as following:

- Form
- Links

7- Find words in the text which mean the opposite of the following words :

-Incorrect

-Disperse

-Unknown

8- Summarize the text in few lines.

Part 2 : Write the following figure's caption and give it a title.