

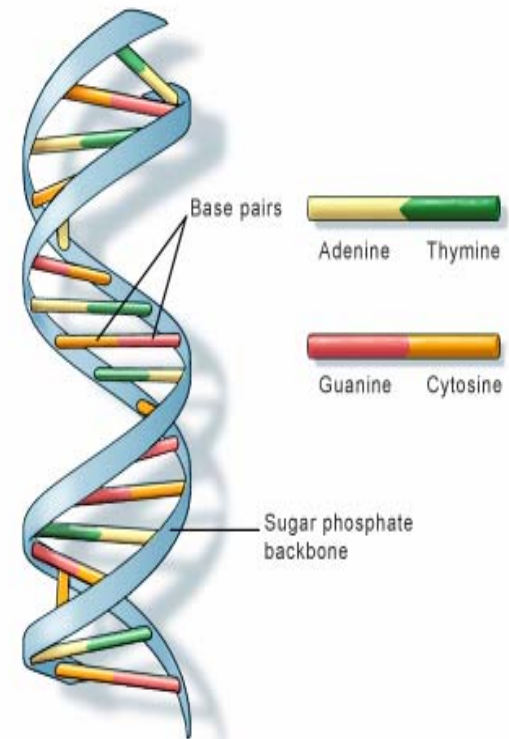
DNA, Genes and Chromosomes

10 A4

22nd of May 2007

What is DNA?

- DNA, or deoxyribonucleic acid, is all the genetic information inside humans and almost all other organisms.
- The information in DNA is stored as a code made up of four chemical bases: adenine (A), guanine (G), cytosine (C), and thymine (T).



U.S. National Library of Medicine

Inherited characteristics

- What makes this baby human? What determines its gender?



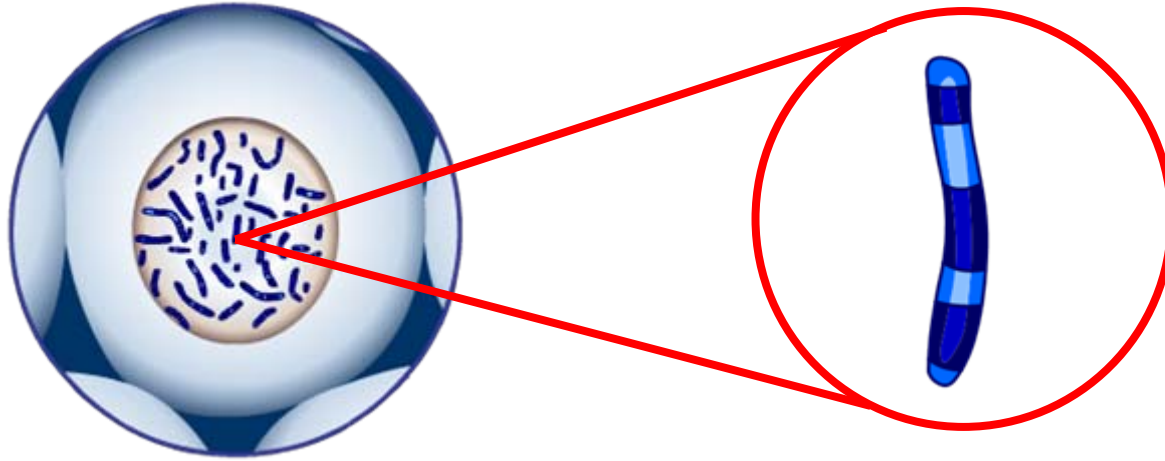
In all living things, characteristics are passed on in the **chromosomes** that offspring inherit from their parents.

So all human characteristics, including gender, must be something to do with chromosomes.

Where are chromosomes found?

What are chromosomes?

- Chromosomes are long strands of genetic information located in the nuclei of cells.



- Chromosomes are most visible during cell division when they replicate and look like this...



You will see chromosomes represented **both** ways.

What are chromosomes?

body

tissues

cells

nucleus

chromosomes

genes



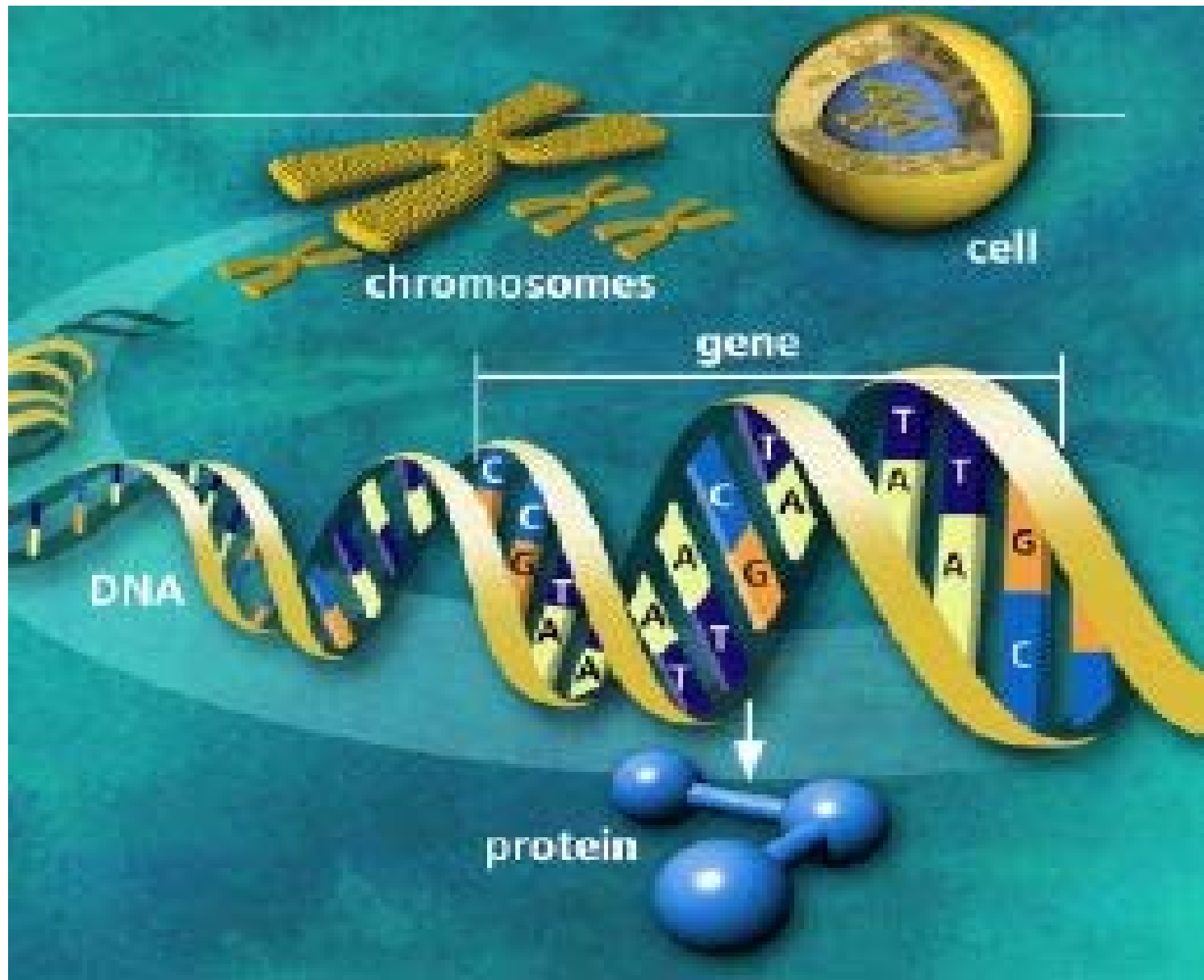
Click on the face to zoom in.

What is the body made of?

How and where is genetic information carried in the body?

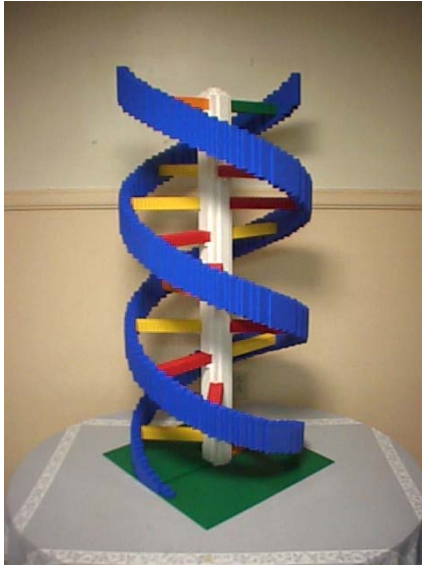
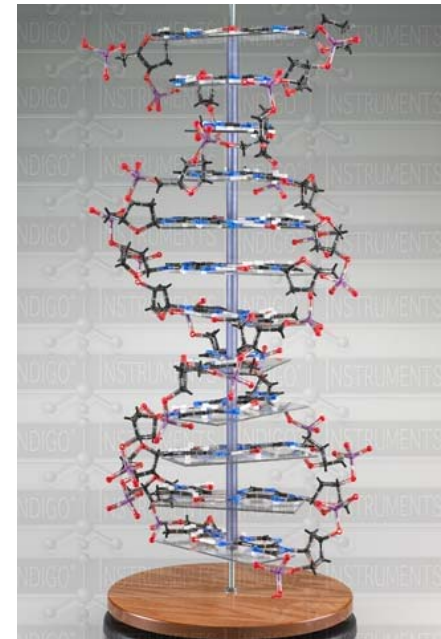
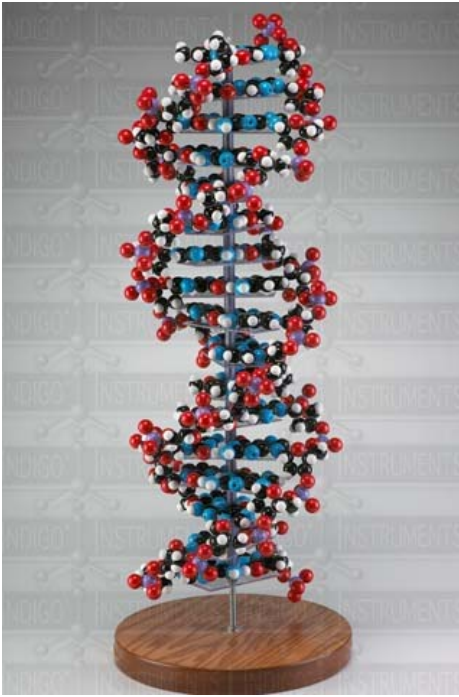
Click on the face or use the menu to find out more.



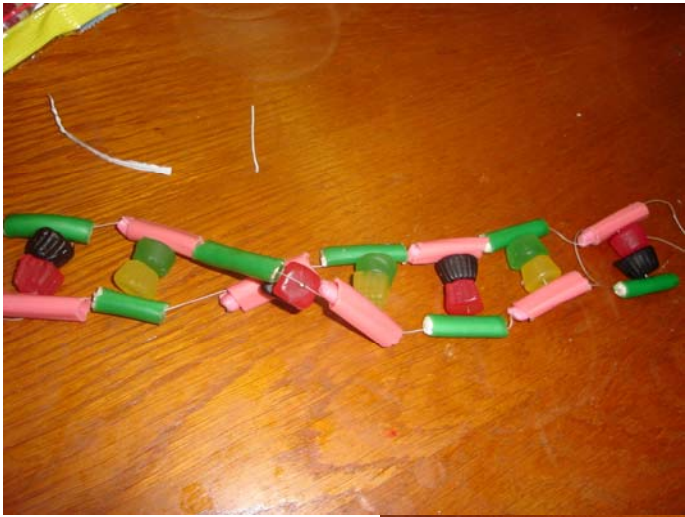


Main activity

Make your own DNA!



BE CREATIVE!!!



Base pairs

Sugar

Phosphate

Genes, DNA and Chromosomes

1. What is DNA?
2. What is a chromosome?
3. What is a gene?
4. Where is the genetic information stored?

