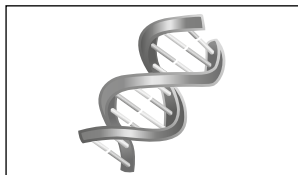


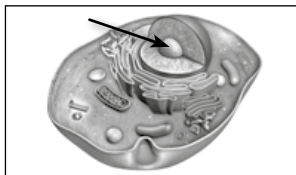
Biology: Genetics

- 1 Check the meaning of the new words. Label the pictures with three of the words.

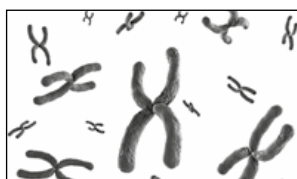
cell chromosomes DNA genes
molecule nucleus



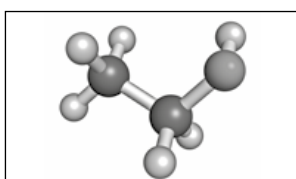
DNA



1 _____



2 _____



3 _____

- 2 Read the text. What is a *gene*?

GENES

This is Maya Watson. She's got dark hair and brown eyes, like her mum, and she's tall, like her dad.



Why are people in the same family similar? The answer is *genes*.

Genes are very important. They're so small that you can't see them. There are between 25,000 and 35,000 genes in each cell in your body, and you have got billions of cells!

The central part of a cell is called a *nucleus*. Inside the nucleus, there are small structures called *chromosomes*. *DNA (deoxyribonucleic acid)* is a very special molecule. It's in the chromosomes in the nucleus of a cell. DNA is like a computer program for the cells in the body. It's got different sections. These sections are the genes.

About 99.9% of the DNA of all the people on Earth is the same. The difference between your DNA and your best friend's DNA is only 0.1%!

- 3 Read the text again. Complete the sentences.

There are between 25,000 and 35,000 genes in a cell.

- 1 There are _____ of cells in the human body.
- 2 The _____ is the central part of a cell.
- 3 DNA is in the _____ in the nucleus of a cell.
- 4 DNA is like a _____ program for the cells.
- 5 The difference in DNA between you and your friend is about _____ %.

Extension activity

- 4 Find more information about genes. Use the internet or the library to help you. Then do the genetics quiz.

GENETICS QUIZ

- 1 Who is 'the father of genetics'?
a Gregor Mendel ☐
b Dmitri Mendeleev ☐
- 2 What is the shape of a DNA molecule?
a a double circle ☐
b a double helix ☐
- 3 A human has got about 20,000 genes. Which has got more genes than a human?
a a chicken ☐
b a tomato ☐
- 4 Who has got an x/y chromosome?
a boys ☐
b girls ☐