

Name:

Class:



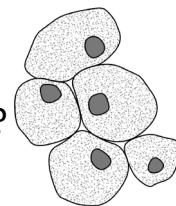
What is the 3D model of DNA called?

Double helix

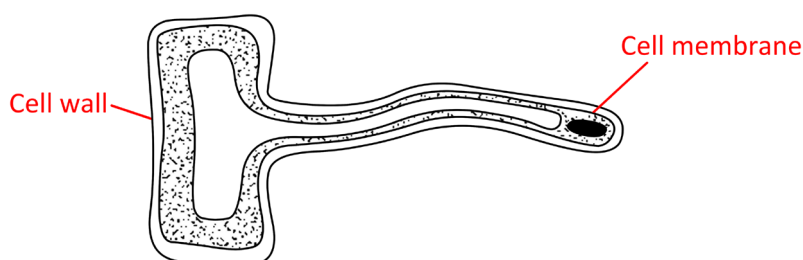
Name the two scientists credited with determining the 3D model of DNA.

James Watson and Francis Crick

The diagram shows some liver cells as they appear under a microscope.

How many **cell walls** are shown?**0**

The diagram shows the structure of a plant cell.



i. What is a function of this specialised plant cell?

A It absorbs carbon dioxide from the air.**B** It absorbs ions from the soil.**C** It transports sucrose from leaves.**D** It transports water in stems.

ii. Label the cell wall and cell membrane in the above diagram.

Marking note: accept any correct labelling.iii. State **two** ways in which this cell is adapted for its role.Any **two** of the following:

- Large surface area.
- Thin cell wall.
- Thin cell membrane.
- Many mitochondria (to provide energy for active transport).

One strand of a DNA molecule contains the base sequence AGT.

What is the base sequence on the other strand of the DNA molecule?

TCA

What is meant by the following terms?

i. Homozygous recessive: **a gene containing two recessive alleles.**ii. Heterozygous: **a gene containing one dominant and one recessive allele.**Give the **word and balanced symbol equation** for aerobic respiration.**glucose + oxygen → carbon dioxide + water**