

THE BASIS OF GENETICS

The entire set of instructions for any cell to function is encoded within its genetic material.

- The genetic material comprises deoxyribonucleic acid (DNA), a complex molecule made up of four building blocks called bases.
- The information stored in DNA is first converted into another molecule called ribonucleic acid (RNA), which is subsequently used by the cell to manufacture proteins.
- Proteins are the molecules that perform important functions that dictate a cell's fate.

Because viruses can multiply only inside infected cells, they are not considered to be alive. However, viruses have some important features in common with cell-based life. For instance, their genetic material also comprises DNA or RNA. To multiply, a virus takes over the infected cell's machinery to produce additional copies of its genetic materials.

