

Assignment:-9 Subject: - GK Class:-VIII Teacher:-Mrs. Neetu Garg
 Name:-_____ Class & Sec.:-_____ Roll No.:-_____ Date:-

CHAPTER- IN YOUR GENES

READ THE FOLLOWING -

- 1) DNA is stored in the cell nucleus. Its structure is like a twisted ladder with four different types of rungs. The rungs are made up of four different molecules called bases, occurring in fixed pairs.
- 2) In 1953, James Watson and Francis Crick started studying the basics of how genes work and how they copy themselves. They discovered the structure of DNA, which works like a computer program and stores the information about formation of new cells
- 3) Genetics is the study of heredity, or how certain characteristics pass from parents to their young ones.

SOME POINTS TO BOTHER -

- 1) Genes exist in our cells. :-TRUE
- 2) All genes of a person are equally dominant.:- FALSE.SOME ARE DOMINANT AND OTHERS ARE RECESSIVE.
- 3) Humans usually have 48 chromosomes . :- FALSE .HUMANS HAVE 46 CHROMOSOMES
- 4) In genetics, cloning is the process of creating an organism that is an exact replica of another. :-TRUE
- 5) The cell is the smallest self-contained, living unit. :-TRUE
- 6) Austrian botanist Gregor Mendel studied garden pea plants to establish his laws of inheritance. :-TRUE
- 7) Gregor Mendel was the pioneer of classical genetics. Each cell of all the living things has a genetic code or the body building information— the genes Sometimes a gene does not work as it should, or it works in a harmful way. The result may be a defect in a part of the body or a disease. The condition called albinism is an example :-TRUE

Fill in the blanks. ANSWERS are given along with them-

1. In the middle of a cell is its control centre, the nucleus. It sends instructions to the rest of the cell.
2. Cells of the same type group together to form tissue.

3. Blood is a red-coloured liquid tissue.
4. DNA is stored in the cell nucleus.
5. Even though you have an identical twin, your DNA is unique.
6. Inside the nucleus the DNA is found in thread-like structures called chromosomes.
7. A chromosome is a thread-like structure inside the cell that controls heredity.
8. DNA, one of the largest known molecules, consists of two long thin strands that are wound around each other to form a spiral. This special structure is called a doublehelix.
9. DOLLY was the first cloned sheep.
10. FINGERPRINTS are unique to each person, even identical twins.

Genetic terms

Base: A building block of DNA

Gene mapping: Locating the positions of genes in a chromosome

Mutation: An inheritable change resulting from an alteration in DNA

Dominant: Greater influence by one of a pair of genes that affect the same inherited character

Recessive: The failure of one of a pair of genes present in an individual to express itself because of the greater influence, or dominance, of its opposite-acting partners.