DNA is genetic material.

Explanation:-

Just to prove that the DNA is genetic material the following experiments may be done-

DNA is genetic material. It can be proved by :-

1) Conjugation -> The process of conjugation was first of all introduced by 'Lederberg' and 'Tatum'.
They made their experiment on Ecoli bacteria

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They took two types of bacteria- one was motile and another was non-motile. The motility determine maleness and femaleness. The motile bacterium behaves like male while the non-motile behaves like female. The motile bacterium comes in contact with non-motile thus physical contact is form. For this pross pili plays important role.

With the help of enzyme the contact wall is dissolved and a thin cytoplasmic tube like structure is formed, known as conjugation tube.

Through the conjugation tube the materials passes from one to another bacterium. With the help of certain enzyme some part of DNA of motile bacteria breaks and passes away through the conjugation tube

into the recepient bacteria
The cell contributing the DNA is known as doner cell. and another is recepient cell.

The recepient cell becomes recombiment due to presence of some new genetic material from donor cell.

As the fussion between the two cells is only partial the recepient cell is termed as 'merozygot'. And finally this merozygot produces a new strain of bacterium.

2) Transformation:-

→ Avery, Mccleoid & McCarty.
→ Griffith
→ Pnumococcus

DNA is genetic material and can be proved by transformation experiment.

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The transformation process was first of all explained by 'Griffith'. The whole process was established by three scientists known as Avery, McCleoid and McCarty.

The whole experiment was done in pneumococcus bacteria According to them if a suspension of dead cells of one strain (type) is mixed living cells of the other strain, recombination may occur resulting into the change of character in the living cells. They observed that the third strain of pneumococcus which is capsulated is responsible for the pneumonia disease. The other strain are II is non-capsulated and are not capable of causing the disease.

When non-capsulated are II is mixed with the DNA