

① Natural Selection:-

Natural selection brings about evolutionary change by favouring differential reproduction of genes.

Differential reproduction of genes produces change in gene frequency from one generation to the next.

It does not produce genetic change. Further, natural selection creates real adaptive relations between population and environment, by favouring some gene combinations, rejecting others and constantly moulding and modifying the gene pool.

ex- intermolecule, intergene, interchromosome, intergenome, interindividual, interdemic, interracial, interspecific and intercommunity.

(E) Isolation

It means separation of a population into many groups by several types of barriers. These separated groups become unable to interbreed. Geographical isolation includes physical barriers such as high mountains, rivers, oceans and long distances preventing interbreeding between related organisms.

Physiological barriers help in maintaining the individuality of the species, since these isolations do not allow the interbreeding amongst the organisms of different species. This is called reproductive isolation.

WORK TO DO

⇒ Speciation (Origin of new species) :-

Participate in the speciation in the following manner :-

- ① Mutations bring about variations.
- ② Heritable variations serve as raw materials of evolution.
- ③ Heredity serves to pass on useful variations to offsprings.
- ④ Natural selection favours organisms with useful variations for adaptation.
- ⑤ Isolation converts them into different types which results in the origin of new species.

PHONES