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Sub. – Biology

Class 12th

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LESSON 1 Reproduction in Organisms

d. Post Fertilisation Events- events in the sexual reproduction after formation of zygote.

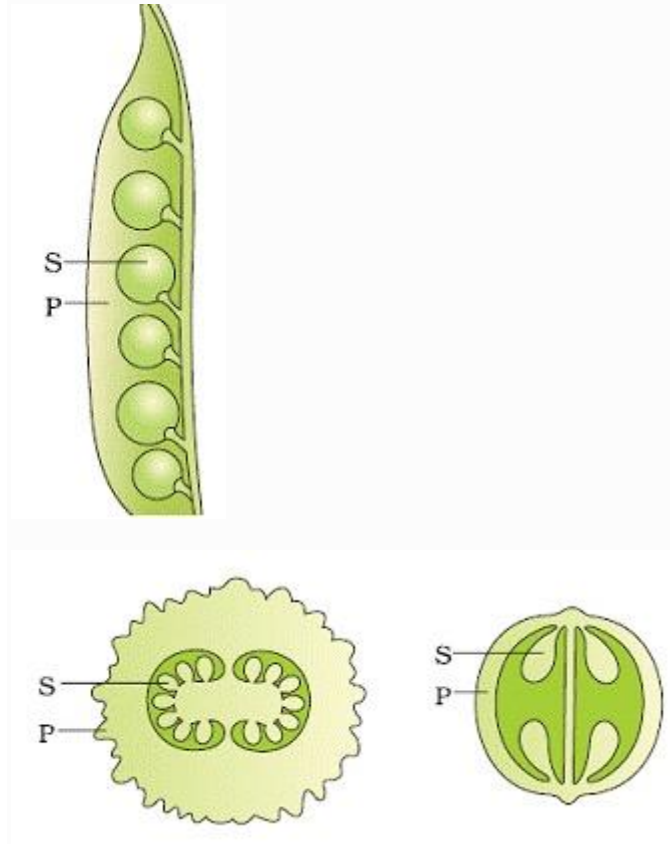
Zygote is the vital link that ensures continuity of species between organisms of one generation and the next. Every sexually reproducing organism, including human beings, begin life as a single cell—the zygote.

- In the organisms, having external fertilisation, zygote is formed in external medium (water) and those having internal fertilisation zygote is formed inside the body of female.
- In algae and fungi, zygote develops a thick wall resistant to desiccation and damage. This germinates after a period of rest.
- In the organisms having haplontic life cycle, zygote divides to form haploid spores that germinate to form haploid individual.

Embryogenesis – the process of development of **embryo** from the zygote. During this, zygote undergoes mitotic division and cell differentiation. Cell division increase the number and cell differentiation help information of new group of cells and organs.

| Oviparous | Viviparous |
|--|---|
| Development of zygote takes place outside the body of organisms and lay fertilized of unfertilized eggs. | Development of zygote takes place inside the body of organisms and produces young ones. |
| Ex – Reptiles and birds. | Ex- Human, dog, horse etc. |

- In flowering plants, zygote is formed inside the ovule. After fertilisation, sepals, petals and stamens of flower fall off. The zygote develops into embryo and ovules into seeds. The **ovary** develops into **fruits** which develop a thick wall called **pericarp**, protective in function.
- After dispersal, seeds germinate under favorable condition to produce new plants.



A few kinds of fruit showing seeds (S) and protective pericarp (P)