

**CLASS – X**  
**LIFE SCIENCE**

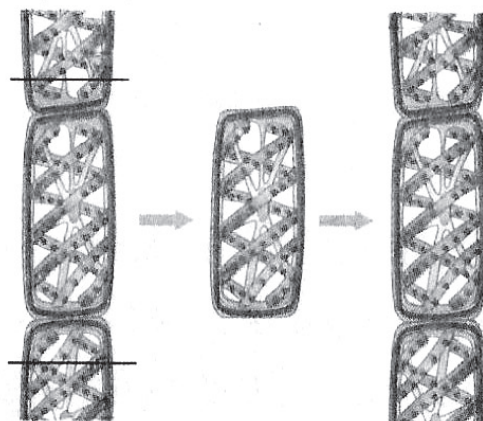
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**Theme: Continuity of Life**

**Sub-theme: Reproduction**

**1. Describe the process of asexual reproduction in Spirogyra.**

- Ans.
- Spirogyra is a filamentous algae that is made up of vertically arranged cells enclosed by a common cell wall.
  - The filamentous body remains attached to a rock or any substratum in water bodies (river/ lake etc.).
  - Strong water current or wave produced by the animals lead to the breaking up of the filament into several parts. Any complete detached cell of the mother plant after being carried by water current is adhered to a rock or substratum to produce a new filamentous plant. This process is called fragmentation.



**Fig: Fragmentation in Spirogyra**

**2. State the advantages and disadvantages of asexual reproduction.**

Ans. **Advantages:**

- Only one parental organism is required.
- Relatively simple and sure process.
- Genetic purity of the parental generation is maintained in the newly produced offspring.

**Disadvantages:**

- Gametes are not produced; crossing over does not occur. As a result variation is absent among the offspring and least is the chance of evolution.
- Offspring produced have low disease-resistant capability and are weak in nature.