

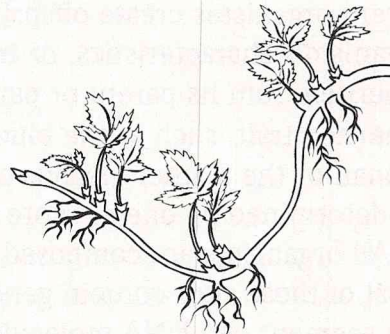
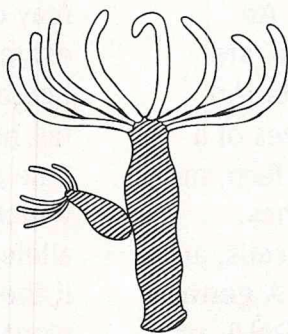
Asexual Reproduction

How do organisms reproduce asexually?

In **asexual reproduction**, a single organism produces offspring that are genetically identical to it. In other words, the offspring have exactly the same DNA as the parent. There are several types of asexual reproduction.

Binary fission occurs in bacteria. Bacteria are single-celled organisms. Each bacteria cell contains a single chromosome. During binary fission, the chromosome is copied, the two copies move to opposite sides of the cell, and the cell then divides into two. Reproduction by binary fission can take place very rapidly. If environmental conditions are right, some bacteria can reproduce every 20 minutes.

Budding and regeneration occur in many-celled organisms. In **budding**, a new organism grows out of the body of the parent. When the offspring becomes large enough, it separates from the parent to live



The hydra is a microscopic, many-celled animal that can reproduce by budding. Strawberry plants can reproduce by forming runners.

on its own. In **regeneration**, a whole organism can grow from a part of an organism. For example, if a flatworm is cut in two, each part can regenerate the missing portion, making two flatworms.

Runners are stems that grow horizontally along the ground. Some plants can reproduce by forming runners. Each new plant that grows at the end of a runner is genetically identical to the parent plant.

Show What You Know

1. List four types of asexual reproduction.

a. _____ c. _____

b. _____ d. _____

2. What do the forms of asexual reproduction have in common?
