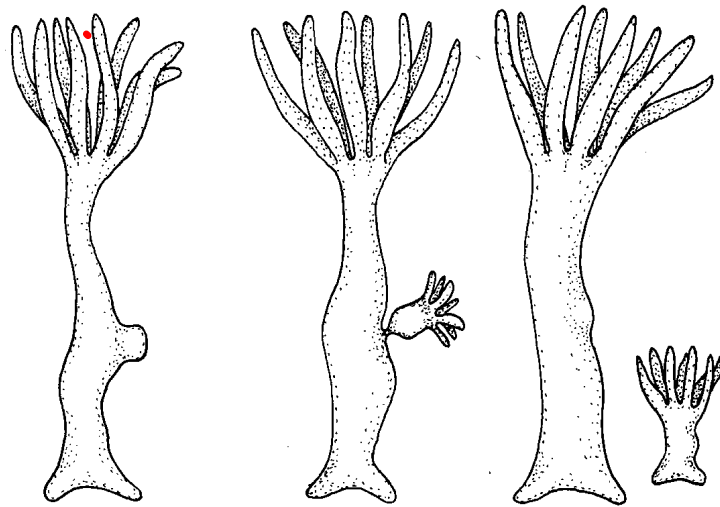


Asexual Reproduction

- **usually** the method of choice for simple organisms (not always)
- the simplest form, the mother cell duplicates and becomes 2 daughter cells
- the offspring are identical to the parent



Sy/97

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Sexual Reproduction

- common in multicellular organisms
- genetic info comes from 2 sources
- offspring not exactly like parents



&



Conjugation

- form of sexual reproduction
- can occur in bacteria
- two bacteria cells come in contact with one another and share plasmids

↳ genetic material



Hermaphrodites

- an organism that creates both male and female sex cells
- it is not common for them to self-fertilize
- Figure 4, p 203 in textbook

<http://www.youtube.com/watch?v=MpblUehi9Dk&feature=fvsr>



<http://www.cbc.ca/sports/amateur/story/2009/09/10/sp-iaaf-athletics-semenya.html>



<http://www.youtube.com/watch?v=OTbnhMNviuA>



External Fertilization

- the sex cells unite outside the female's body
- i.e. Fish

Internal Fertilization

- sex cells unite inside the female's body
- i.e. Human's natural conception

Read Page 202-205

Case Study

p. 202 a-p

Case Study p 202 Answers

**A) Mother Cell = the cell marked "a"
Daughter Cell = the cells marked "d"**

B) Through asexual reproduction, the new cells would be identical to the old ones in both genetic and physical comparisons.

C) Through **sexual reproduction** the new cells would have **half** the genetic material **from any one parent**.

D) **Sexual Reproduction**

- usually occurs in multicellular organisms
- offspring are not identical to parent cells
- requires genetic material from 2 cells

Asexual Reproduction

- usually occurs in simple organisms
- offspring exactly like parent cell
- genetic material comes from 1 cell

E) Organisms that reproduce sexually may adapt better because they are getting genetic info from 2 sources rather than 1. This gives the offspring more options in terms of what it can do.

F) Through conjugation bacteria can quickly pick up new genes that allow them to do new things. (they are upgrading)

→ pick traits they want by picking great partners

G) Conjugation

- only pieces of genetic info are shared
- it occurs quickly

Sexual Reproduction (humans)

- half of any one parent's genetic info is shared
- slow process, approximately 9 months

H) Fertilizing other eggs varies the gene pool and provides more possibilities for each organism.

i) Worms are slow, do not see well and live in the ground. Being hermaphroditic allows them to vary their gene pool but still have an opportunity to reproduce.

**K) Internal occurs inside the female's body
External occurs outside their body**

.

L) 23 Chromosomes can be found in both the sperm and the egg.

M) Summertime brings more food and resources for reproduction, therefore being female in the summer makes use of these benefits.

N) No, asexual reproduction means they are exact copies of the original which in this case are females.

O) Reproducing sexually varies the gene pool.

ᵝ) Asexually is

- quick
- you don't have to find a mate
- It also guarantees what the offspring will be identical to mother .

Sexually provides variability for the next year's generation.