**CLASS SET**

**Reproduction Notes**

**SB2. Students will analyze how biological traits are passed on to successive generations.**

e. Compare the advantages of sexual reproduction and asexual reproduction in different situations.

**Directions:** 1. Divide a sheet of paper into 4 columns and label them the following:

**Type of reproduction Sexual/Asexual? Description Example of organisms**

2. Use the following information to describe the 6 types of reproduction that different organisms use to reproduce.

A. Sexual reproduction produces offspring (zygote) that are combinations of traits

from two different parents (gametes). This results in increased genetic diversity.

**1. Conjugation**: Bacteria form a bridge between cells and exchange genetic information(DNA) (no offspring produced)

**2. External fertilization**: gametes (sex cells) released into environment (usually water) on the outside of the body. Examples of organisms include aquatic organisms such as all fish and amphibians. Insects also externally fertilize.

**3. Internal fertilization**: gametes(sex cells) join inside reproductive tract of the body. All mammals internally fertilize.

**B. Asexual reproduction** produces exact copies (clones) of the parent.

1. Mitosis evenly distributes the chromosomes and produces identical copies of the parent cell.

**1. Binary Fission**: division of unicellular organisms to produce identical offspring.

Ex. Bacteria, Protists (amoeba, paramecium, Euglena)

**2. Budding**: Offspring sprout from part of parent body. Ex. Sponges, Hydra(aquatic organism)

**3. Regeneration**: pieces of an organism can create a new organism. Ex. worms and starfish

\*\*Many organisms utilize both asexual and sexual reproduction**.**

Hermaphrodite: individual organism produces both sperm and egg for sexual reproduction

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