

# CHAPTER 6 LESSON 2

## Sexual Reproduction and Meiosis

**SPI 0707.4.1**

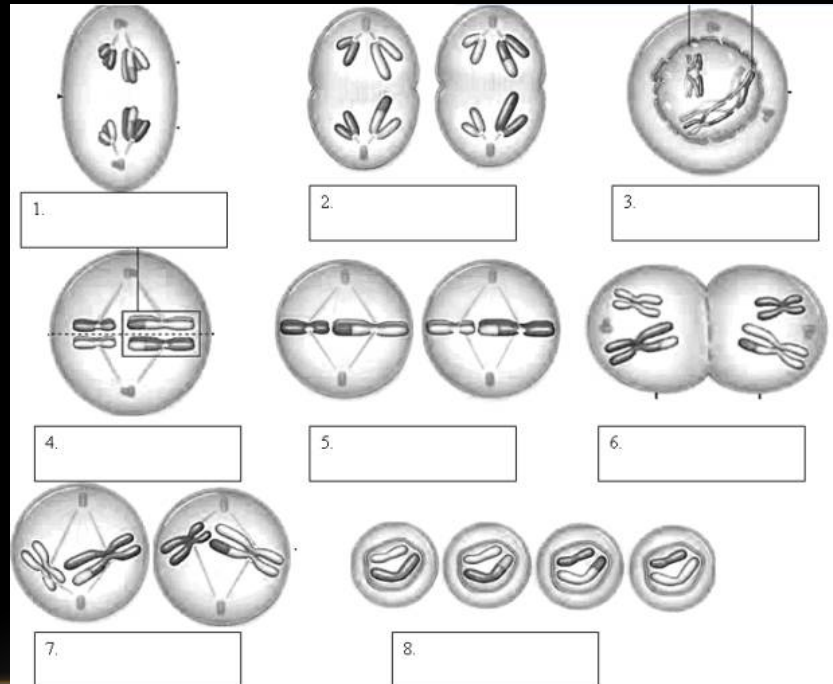
Classify methods of reproduction as sexual or asexual.

**SPI 0707.1.4**

Sequence a series of diagrams that depict chromosome movement during cell division.

# WHAT MASTERY LOOKS LIKE

Label the following pictures:

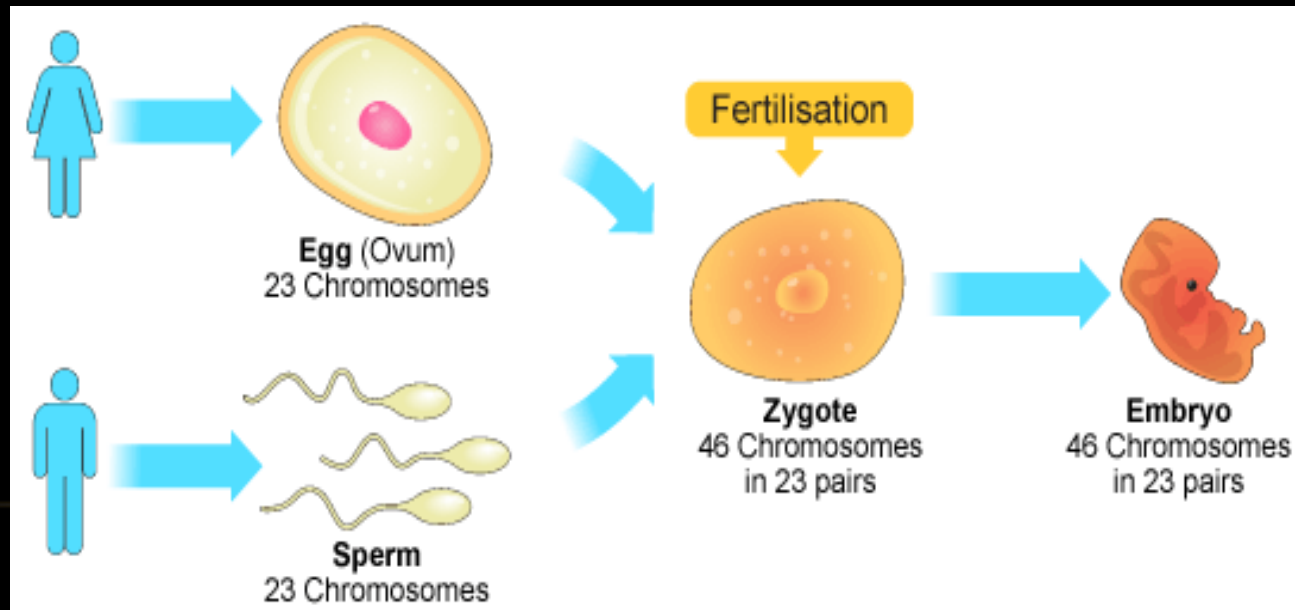


## What you will learn:

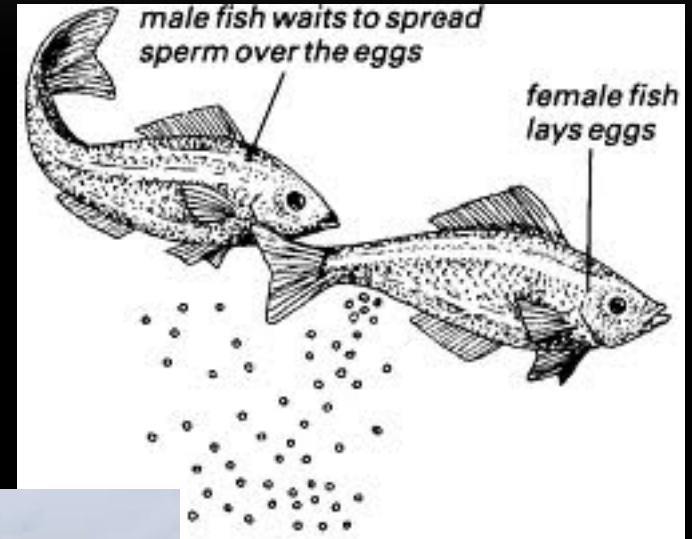
1. Describe the stages of meiosis and how sex cells are produced.
2. Explain why meiosis is needed for sexual reproduction.
3. Name the cells that are involved in fertilization.
4. Explain how fertilization occurs in sexual reproduction.

# Why it's important:

Meiosis and sexual reproduction are the reasons why no one else is exactly like you.



# SEXUAL REPRODUCTION



# SEXUAL REPRODUCTION

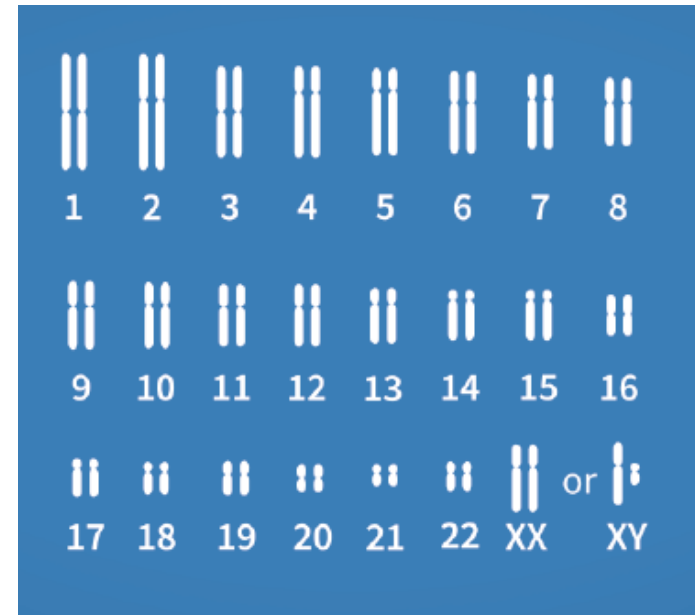
- New organisms can be produced through sexual reproduction.
- During sexual reproduction, two sex cells, sometimes called an \_\_\_\_\_ and \_\_\_\_\_, come together.
- Sex cells are formed from cells in \_\_\_\_\_ organs.
- Sperm comes from male reproductive organs.
- Eggs come from female reproductive organs.

# SEXUAL REPRODUCTION

- The joining of an egg and sperm is called \_\_\_\_\_.
    - The cell that forms is called a \_\_\_\_\_.
  - The egg and sperm generally come from two different organisms of the same species.
  - After fertilization, mitosis and cell division begins.
    - A new organism with a unique identify develops.
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# DIPLOID CELLS AND HAPLOID CELLS

- Your body produces two types of cells: body cells and sex cells
- Body cells far outnumber sex cells. Body cells form brain, skin, bones, and tissues and organs. Human body cells have 23 pairs of chromosomes.

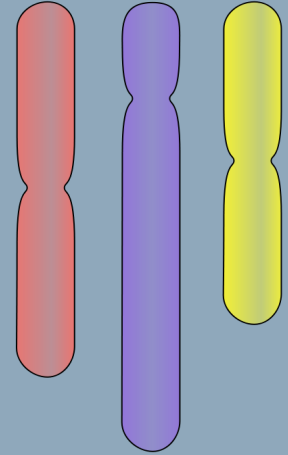




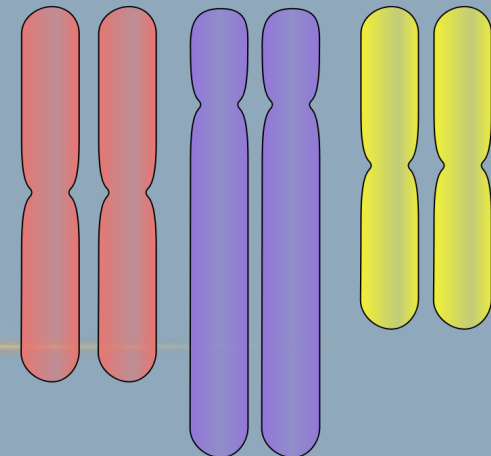
# DIPLOID CELLS AND HAPLOID CELLS

- When cells have pairs of similar chromosomes, they are said to be diploid.
- Because sex cells do not have pairs of chromosomes, they are said to be haploid.
  - They have only HALF the number of chromosomes as body cells.
  - Haploid means “single form.”

Haploid (N)

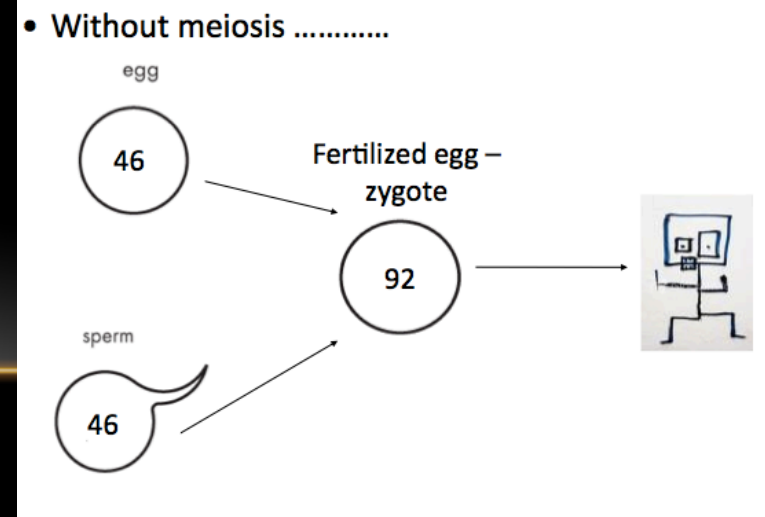
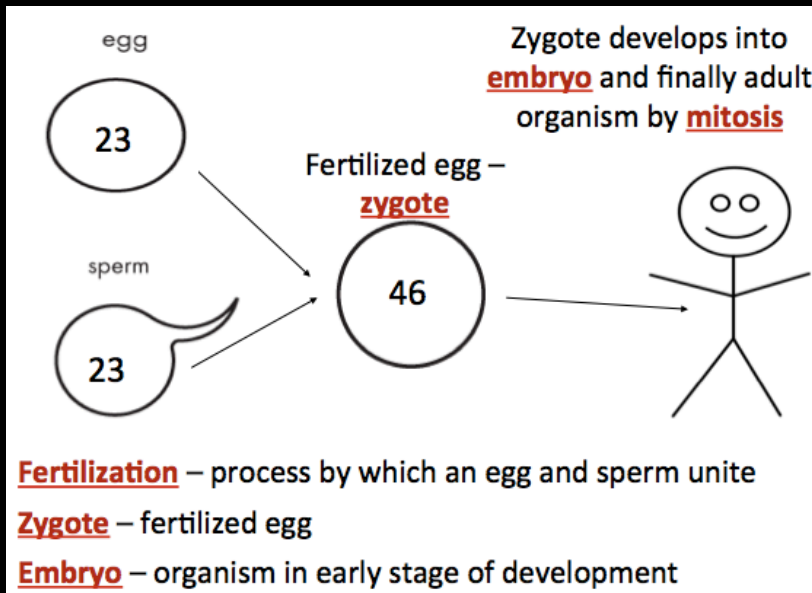


Diploid (2N)



# MEIOSIS AND SEX CELLS

- Meiosis produces haploid sex cells.
- If two diploid cells combined during sexual reproduction, the offspring would have \_\_\_\_\_ as many chromosomes as its parent.
  - Plants with twice as many chromosomes are often produced, but most animals do NOT survive with a double number of chromosomes.
- Meiosis ensures that offspring will have the same diploid number as its parent.



# MEIOSIS

- <https://www.youtube.com/watch?v=vA8aMpHwYh0>

# FOLDABLE

- Today, you will make a foldable so you are ready to take notes tomorrow!
- You will need 5 sheets of paper.

MEIOSIS
MEIOSIS 1 - INTERPHASE
MEIOSIS 1 – PROPHASE 1
MEIOSIS 1 – METAPHASE 1
MEIOSIS 1 – ANAPHASE 1
MEIOSIS 1 – TELOPHASE 1
MEIOSIS 2 – PROPHASE 2
MEIOSIS 2 – METAPHASE 2
MEIOSIS 2 – ANAPHASE 2
MEIOSIS 2 – TELOPHASE 2

## EXIT TICKET

- What is the major difference between meiosis and mitosis?