Cell division types

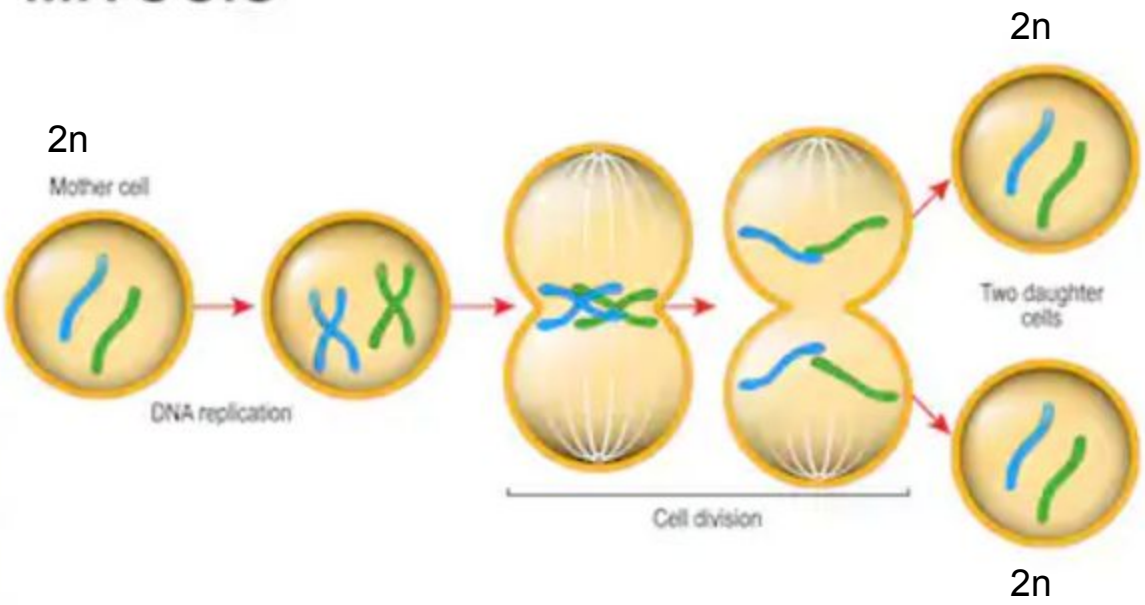
Aim of lesson

- explain the importance of mitosis and meiosis

- compare mitosis and meiosis

MITOSIS

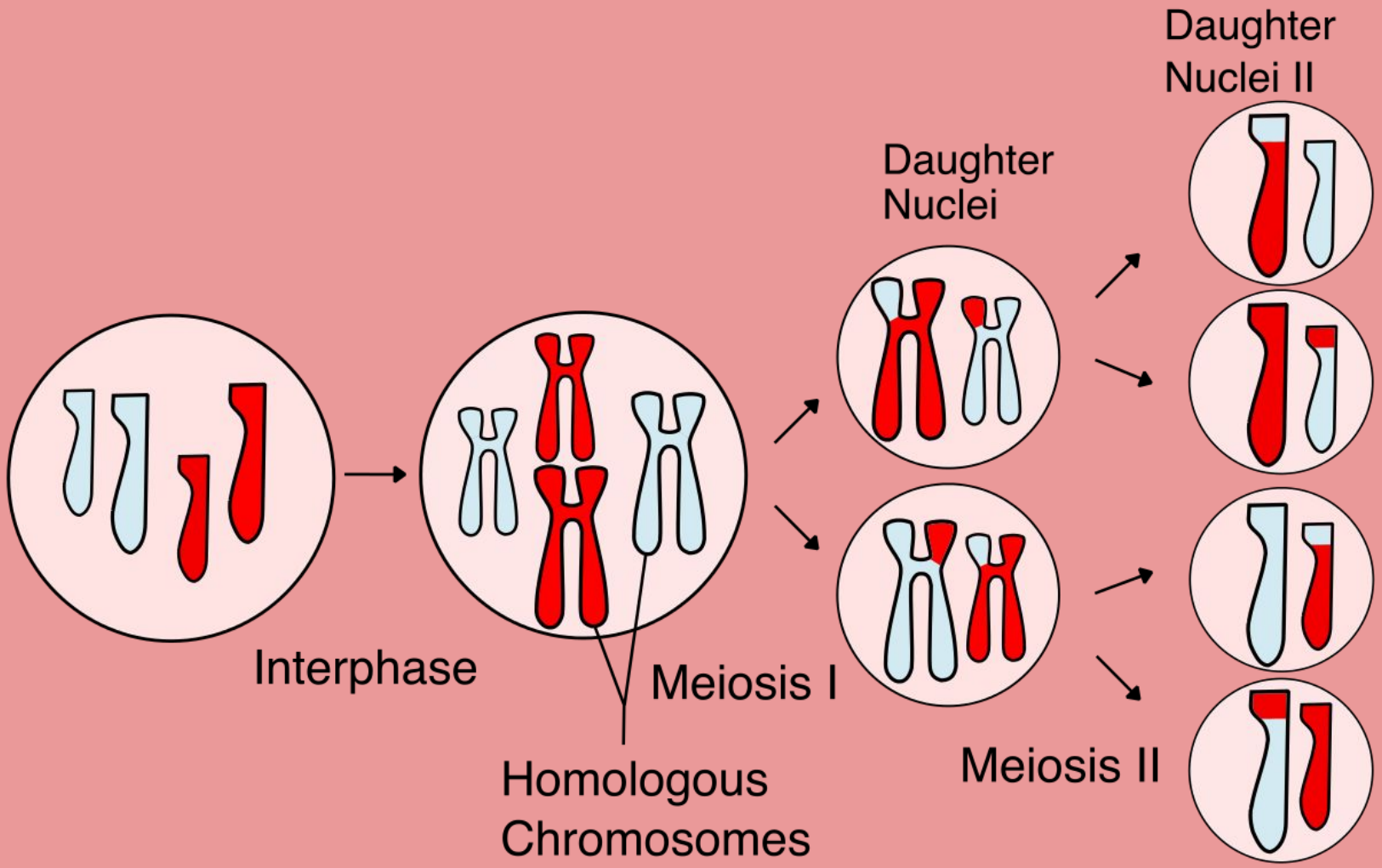
MITOSIS


2n
Mother cell
DNA replication
Cell division
2n
Two daughter cells
2n

- In mitosis 1 mother cell divide one time and produce 2 daughter cells. Mother cell and daughter cells are identical and have diploid (2n) number of chromosomes.By mitosis produced all body cells. By mitosis organisms grow, repair body parts and reproduce asexually.

- **Daughter cells** - newly formed cells

Meiosis


Daughter
Nuclei II
Daughter
Nuclei
Interphase
Meiosis I
Homologous
Chromosomes
Meiosis II

- In meiosis 1 mother cell produce 4 not identical daughter cells, because division occur 2 times(meiosis I and meiosis II). Mother cell have diploid number of chromosomes, daughter cells have haploid number of chromosomes. By meiosis produced reproductive cells: Sperm cell (male) and egg cell (female)

Type of cells in human body

Reproductive cell

Sperm cell (male) and egg cell (female)

Have haploid (n) number of chromosomes

Divide by meiosis

Body cell

All other cells

Have diploid (2n) number of chromosomes

Divide by mitosis

Cancer

NORMAL CELLS

CANCEROUS CELLS

Many cells that continue to grow and divide

Variations in size and shapes of cells

Nucleus that is larger and darker than normal

Abnormal number of chromosomes arranged in a disorganized fashion

Cluster of cells without a boundry

well