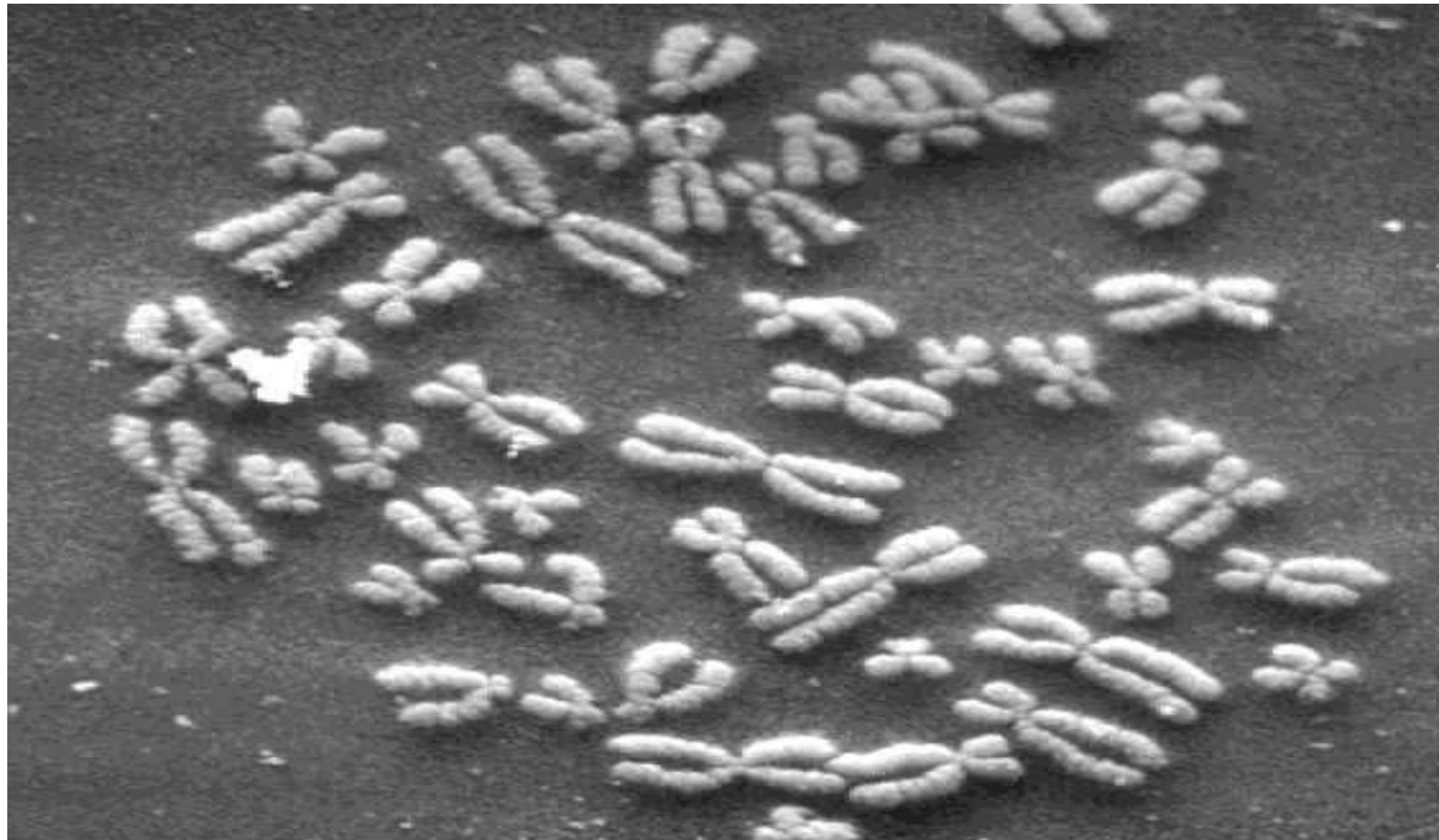


MEIOSIS: PRACTICAL 2025

Life Sciences



Key Concepts: MEIOSIS PRACTICAL

- **TERMINOLOGY**
- **IDENTIFY ALL PHASES OF MEIOSIS**
- **DRAW AND LABEL ACCORDING TO NUMBER OF CHROMOSOMES**
- **GENERAL DIFFERENCES MEIOSIS I & II**
- **COMPARE PHASES eg PROPHASE I & II**

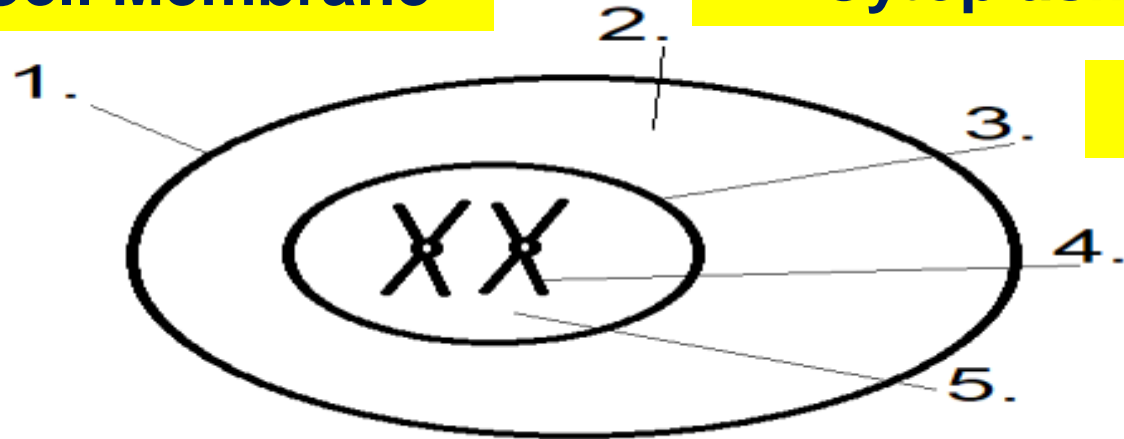
DNA: THE CODE OF LIFE

Cell Membrane

Cytoplasm

Nucleus

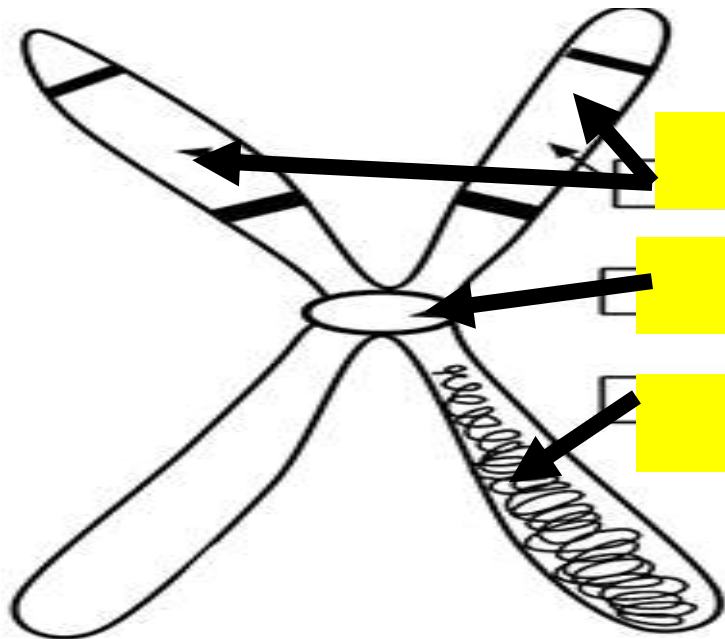
Chromosome



Chromatids

Centromere

DNA



TERMINOLOGY

- **Chromosome**

A structure found in the nucleus of a cell that consists of 2 threadlike chromatids, each containing a single DNA molecule bound by a centromere.

Function of **Centromere**: Binds 2 chromatids together to form a chromosome.

TERMINOLOGY

- **Homologous Pair of Chromosomes**

A pair of chromosomes that have the same genes at the same locations. The 2 chromosomes are similar in size and structure.

TERMINOLOGY

- **Chromatid**

One of 2 identical threads of a chromosome.



TERMINOLOGY

- **Centriole**

2 small structures in the cytoplasm of the cell that move to opposite poles of the cell during cell division.

Function

Produce spindle fibres.

Spindle Fibres are structures for the attachment of chromosomes. They contract to pull chromosomes to opposite poles of the cell.



TERMINOLOGY

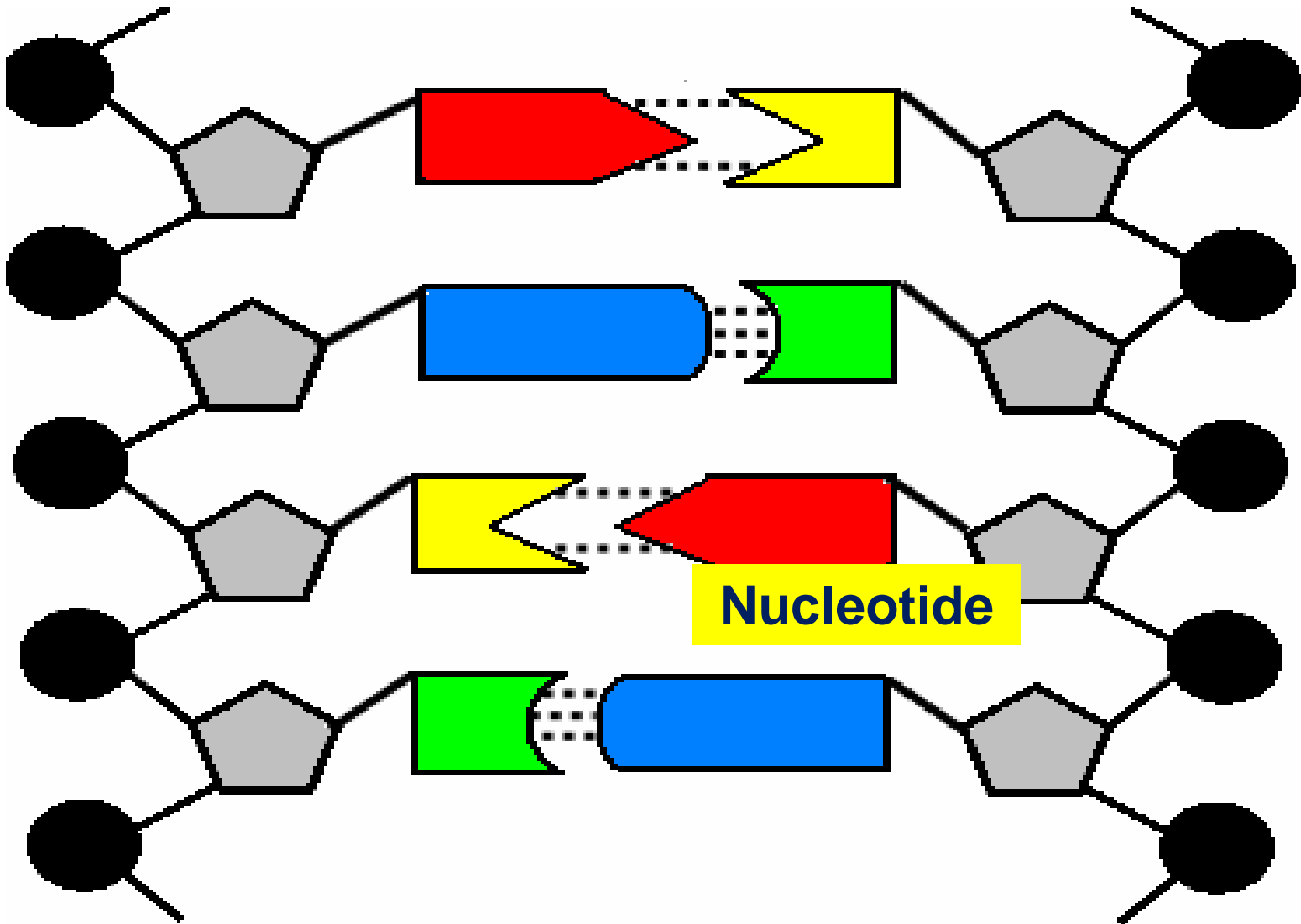
- **Diploid**

A cell containing **2 sets** of chromosomes, one set from each parent.

- * **Haploid**

A cell with one set of chromosomes. The chromosomes are not in pairs (single).

DNA: THE CODE OF LIFE



TERMINOLOGY

- **Gene**

A segment of a DNA molecule coding for a particular characteristic.

* **Genetic Variation** is caused by differences in the nucleotide sequences. **Crossing Over & Random Arrangement of chromosomes** lead to **variety** in offspring.

TERMINOLOGY

- **Crossing Over**

The exchange of genetic material between 2 non-sister chromatids during Prophase I of Meiosis.



MEIOSIS

This process occurs only in testes (m) and ovaries (f)

