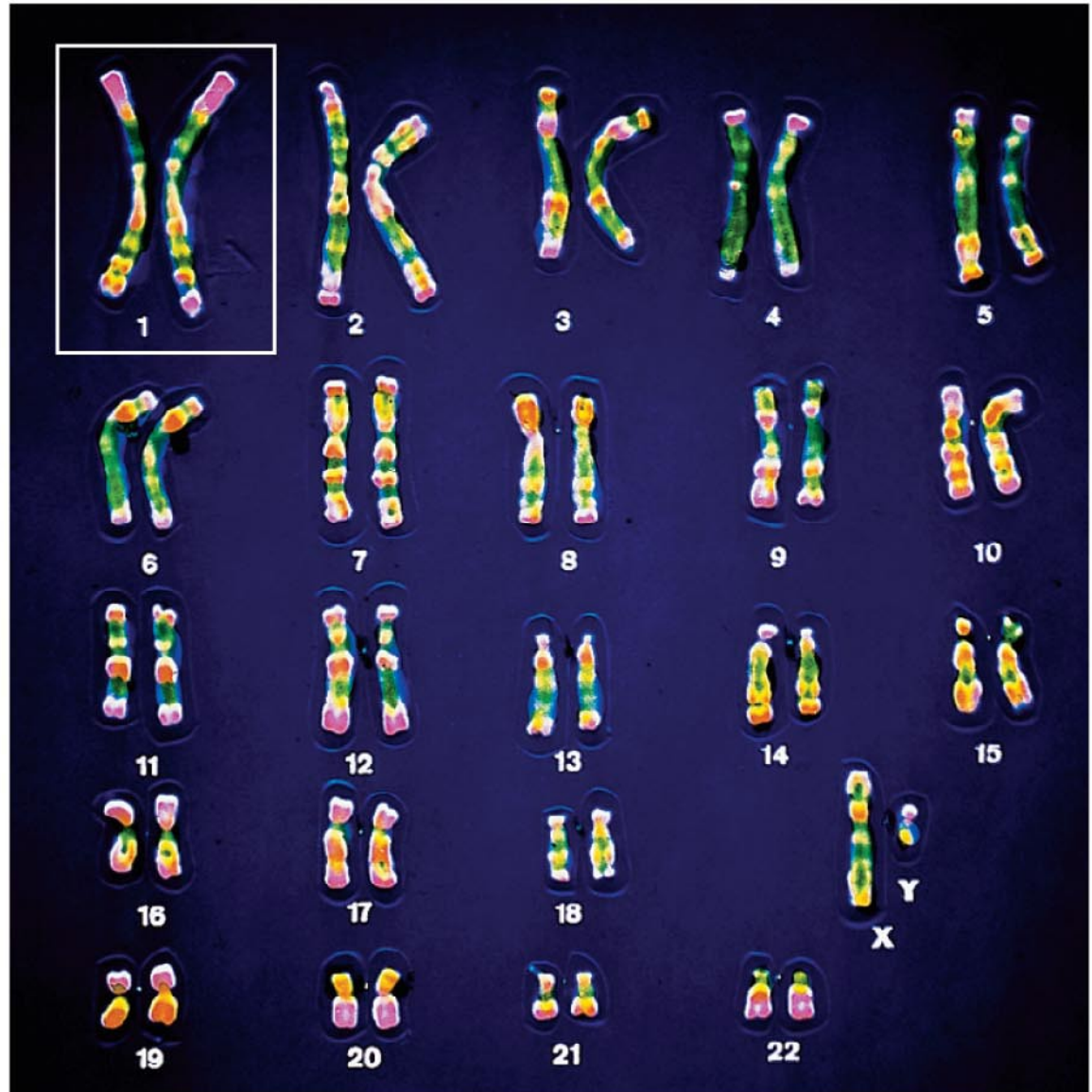
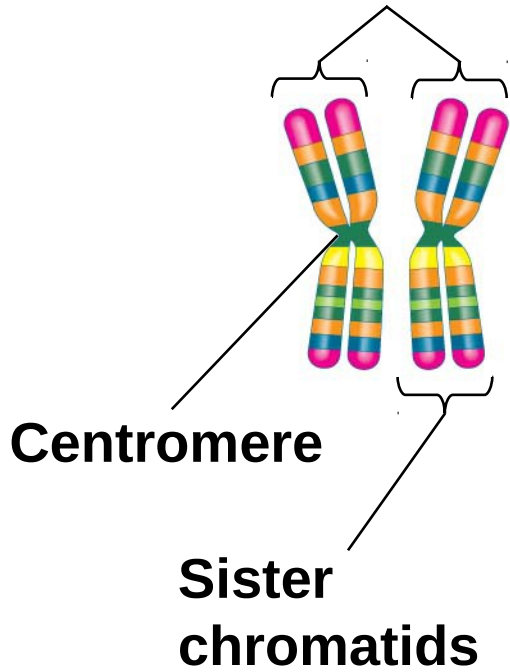


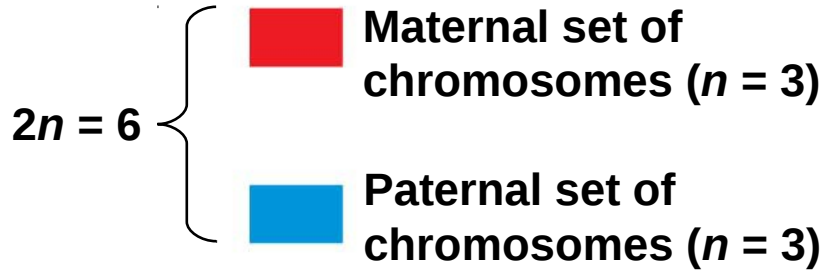
# Pair of homologous chromosomes

5  $\mu$ m



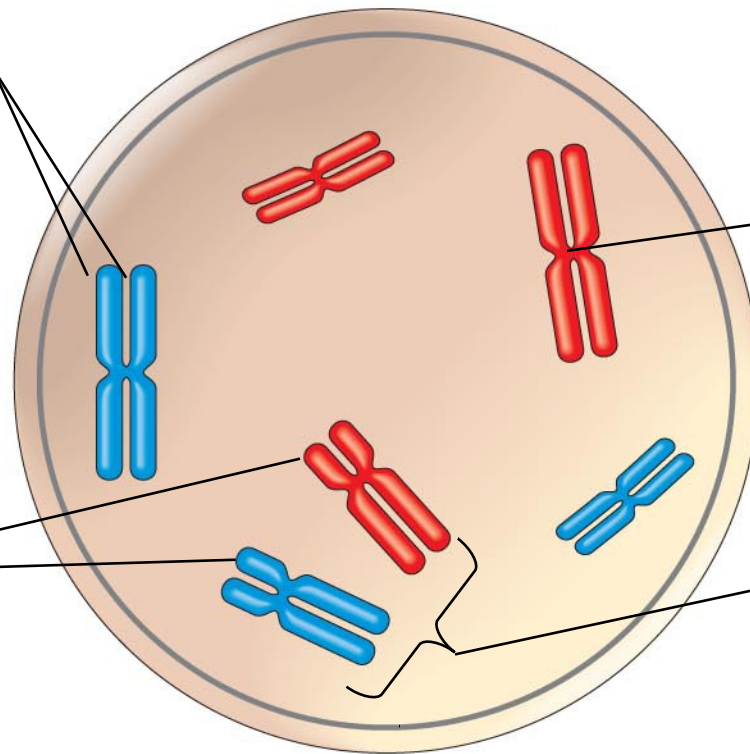
## Key

## DESCRIPTION OF CHROMOSOMES



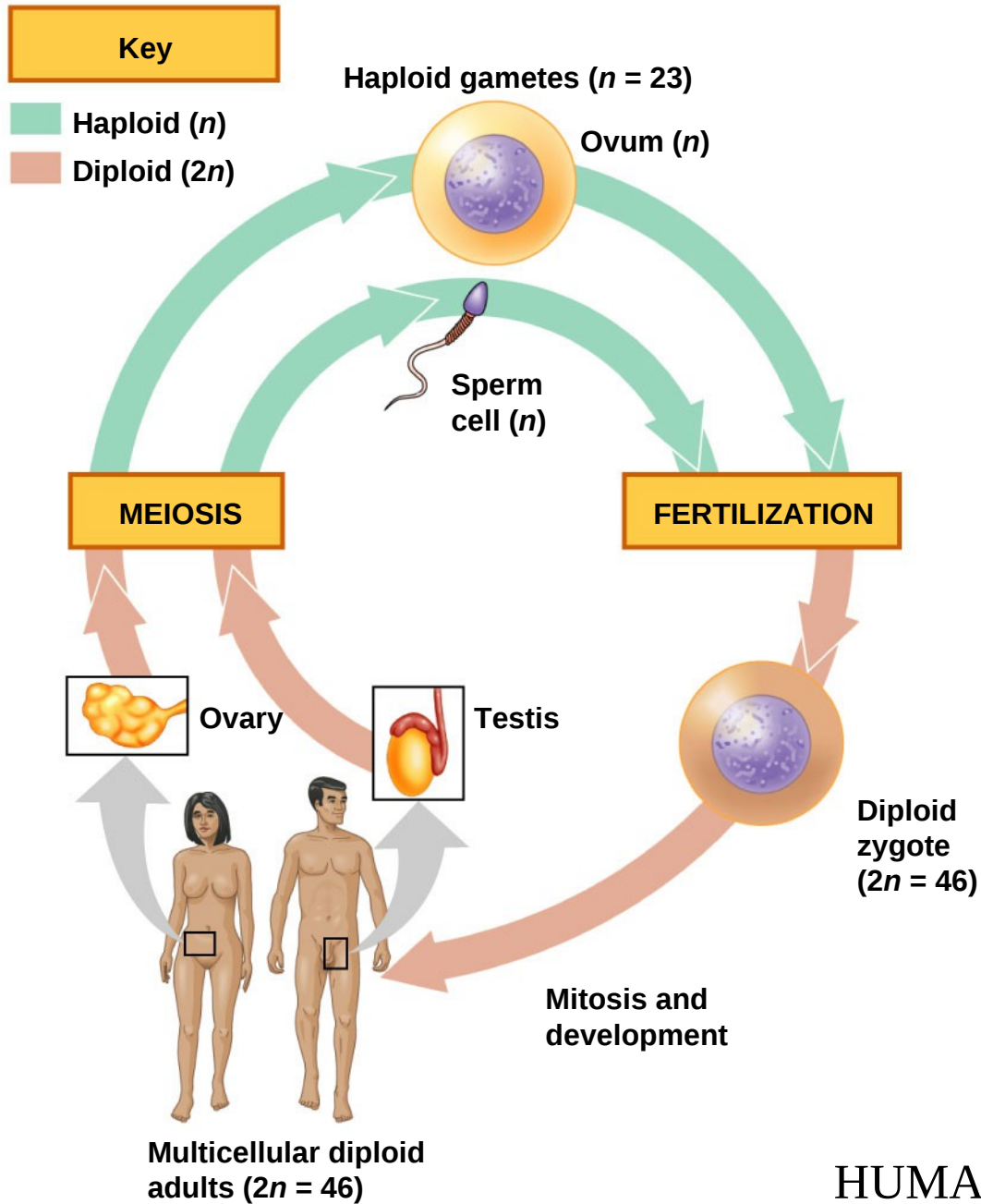
Two sister chromatids of one replicated chromosome

Two nonsister chromatids in a homologous pair



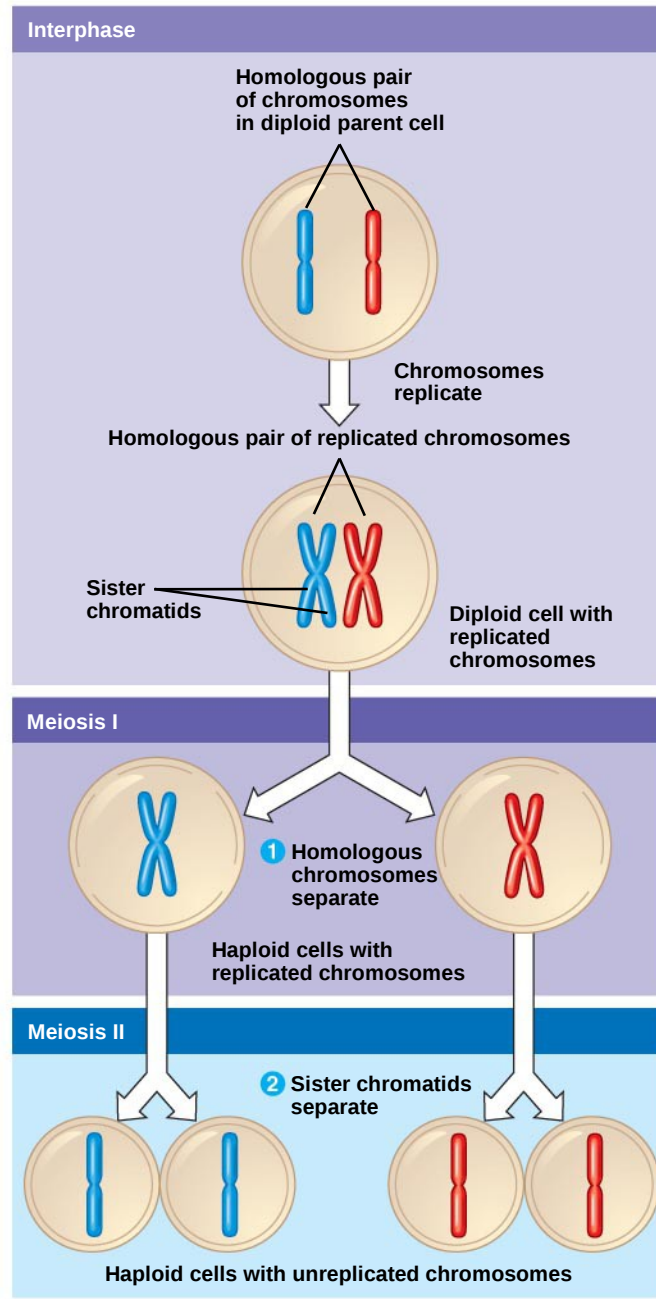
Centromere

Pair of homologous chromosomes (one from each set)



# HUMAN LIFE CYCLE

# MEIOSIS



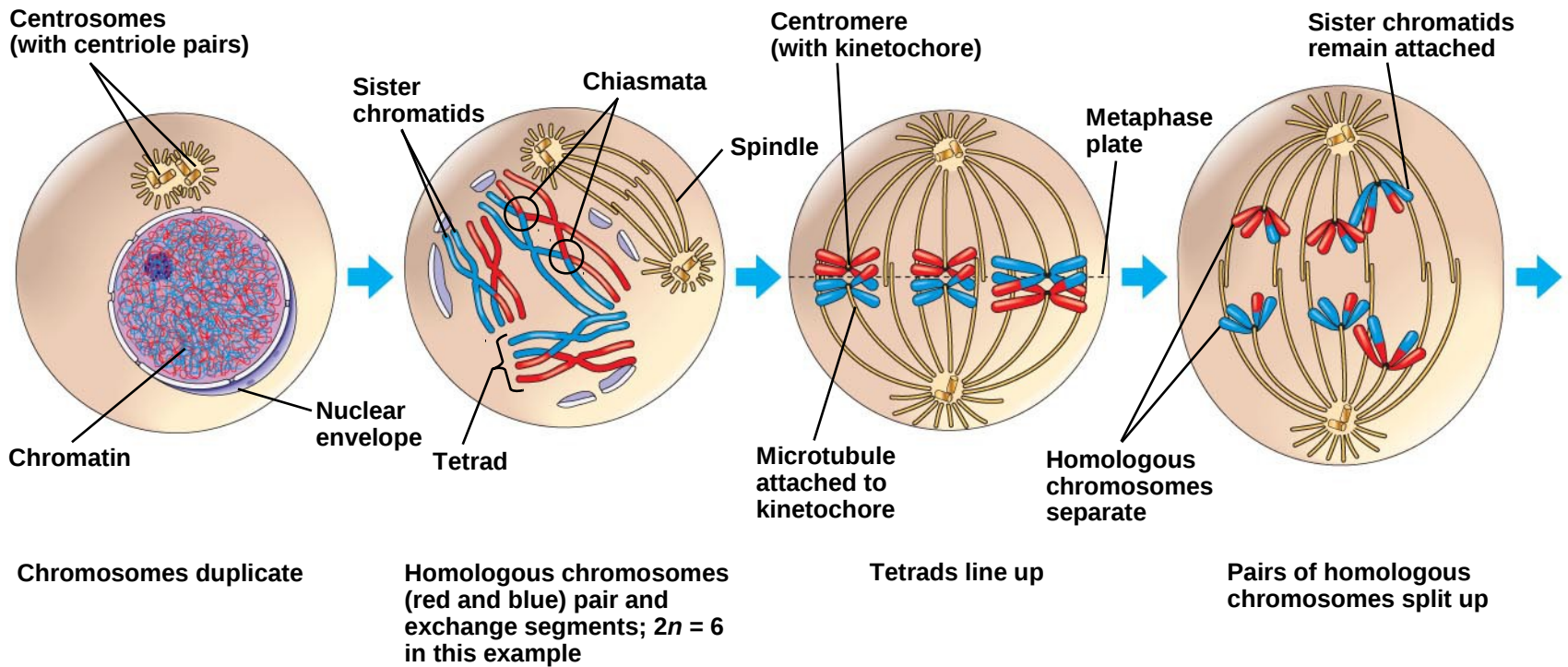
**INTERPHASE**

**MEIOSIS I: Separates homologous chromosomes**

**PROPHASE I**

**METAPHASE I**

**ANAPHASE I**





# MEIOSIS II: Separates sister chromatids

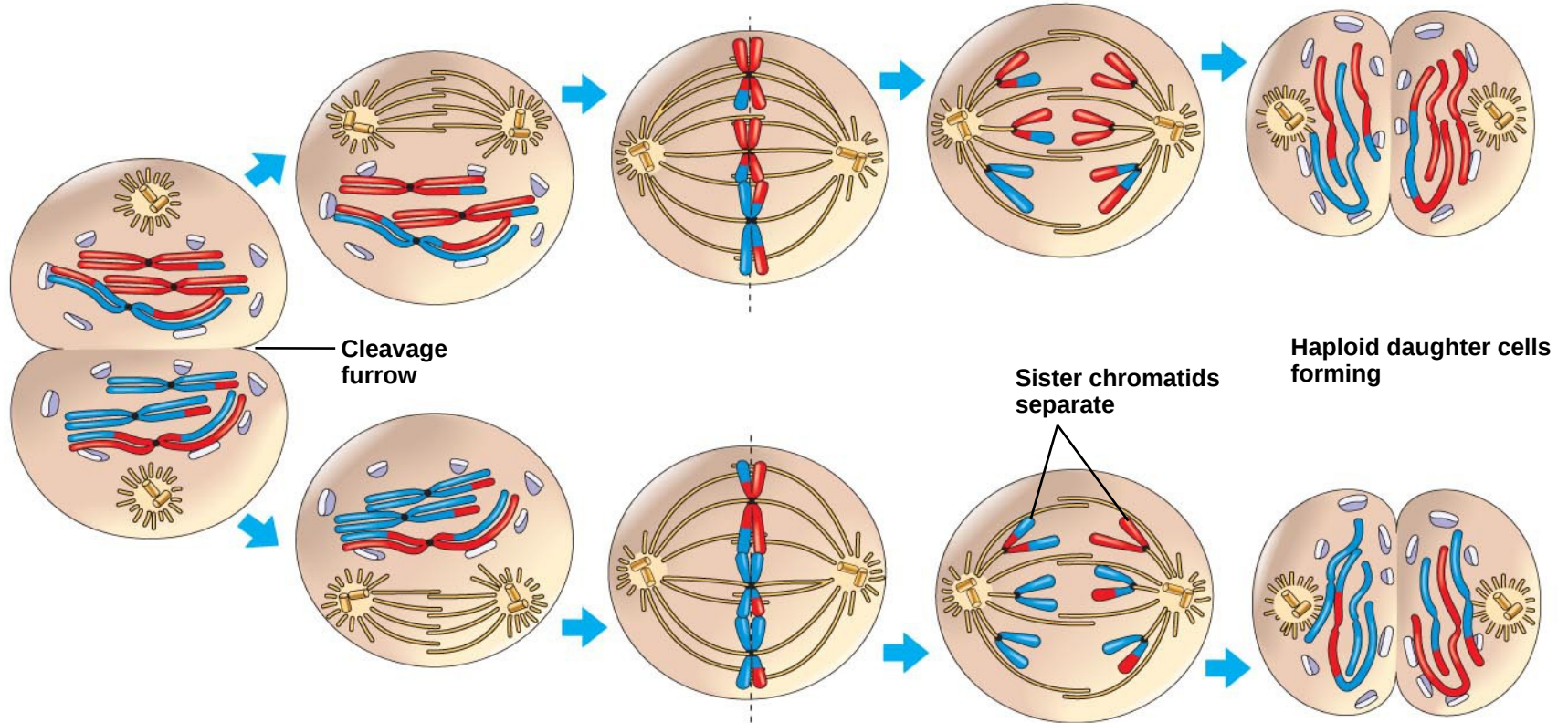
TELOPHASE I AND CYTOKINESIS

PROPHASE II

METAPHASE II

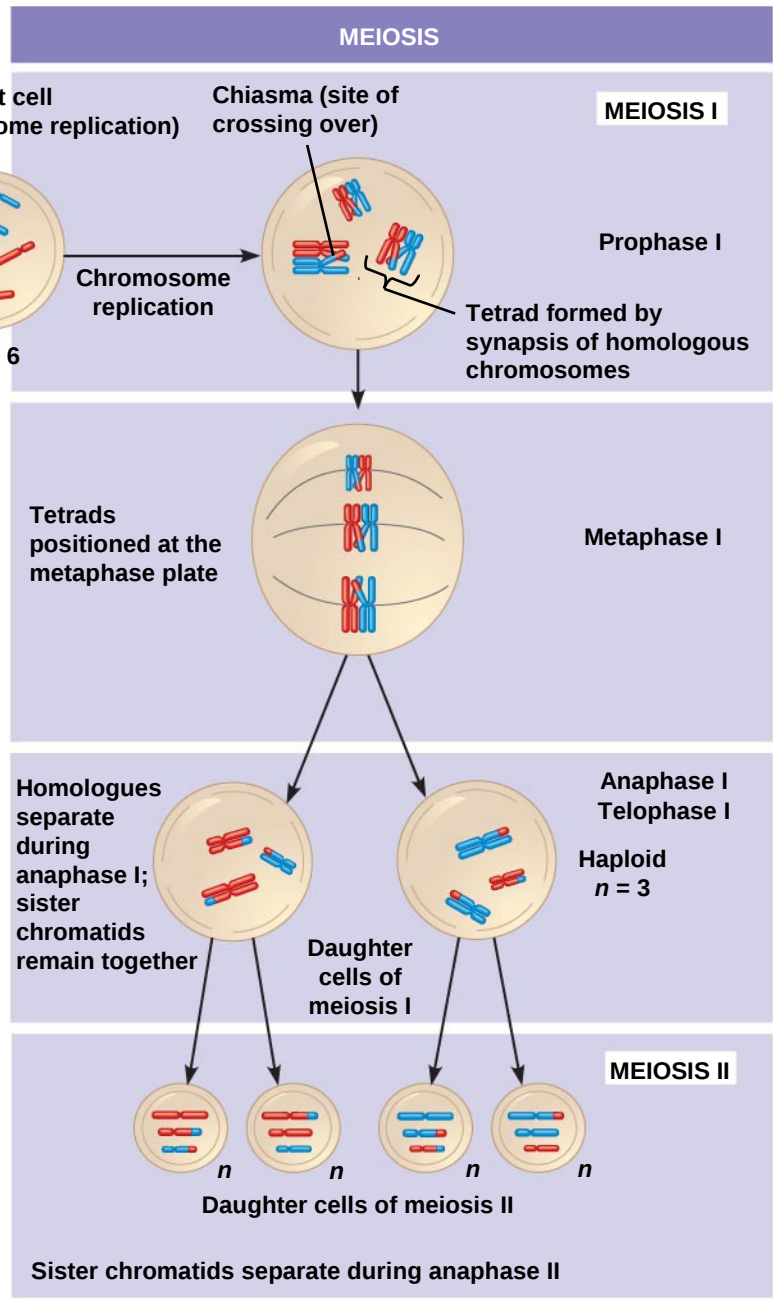
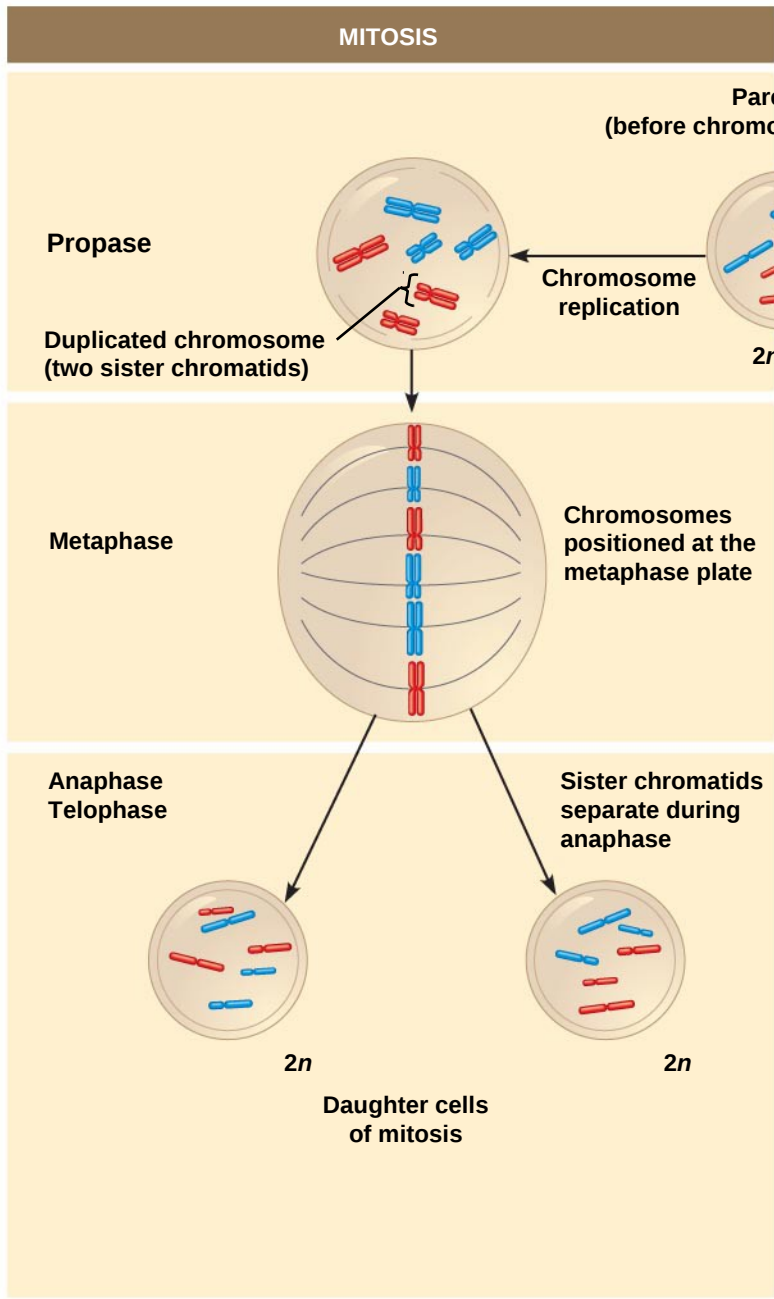
ANAPHASE II

TELOPHASE II AND CYTOKINESIS



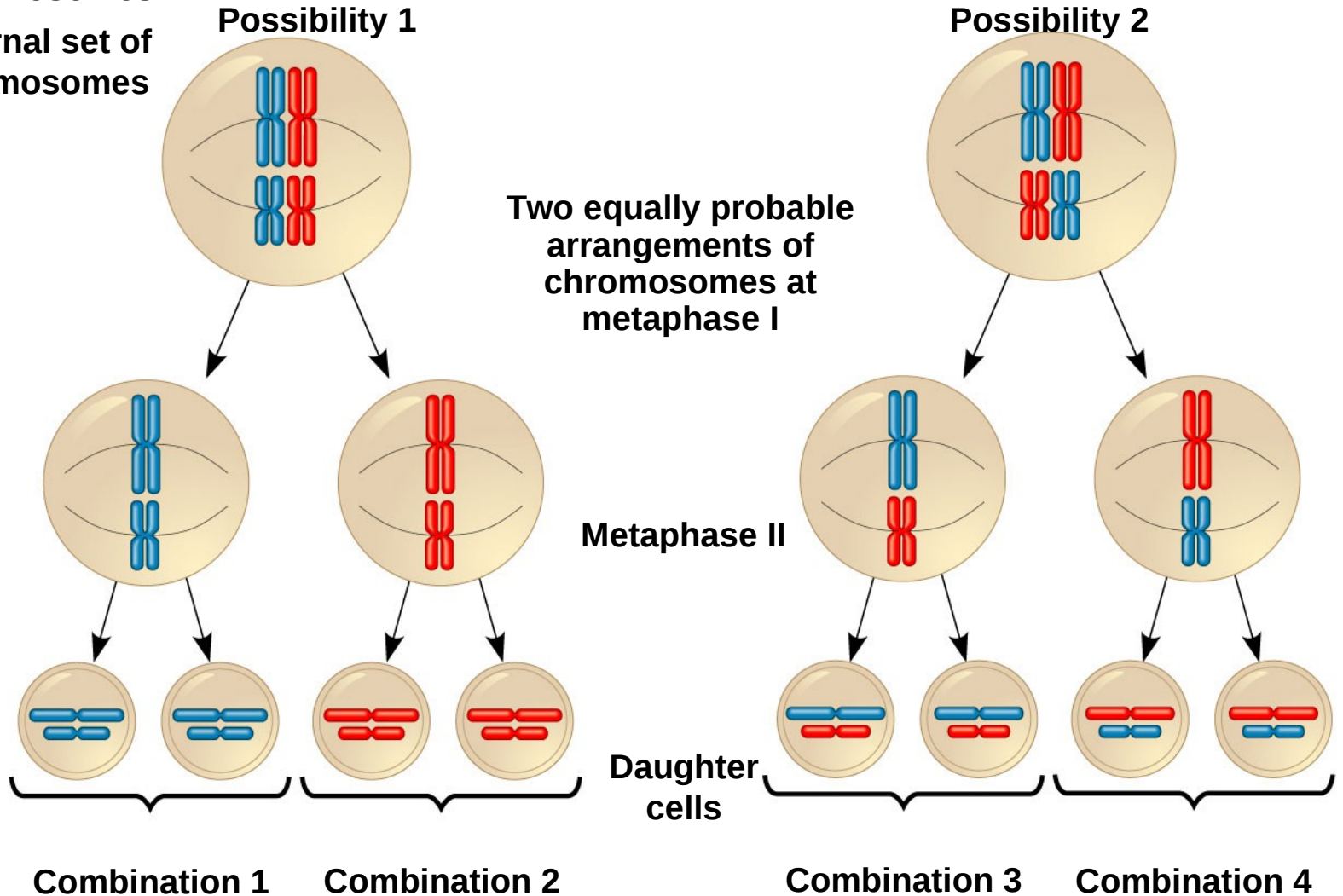
Two haploid cells form; chromosomes are still double

During another round of cell division, the sister chromatids finally separate; four haploid daughter cells result, containing single chromosomes



**Key**

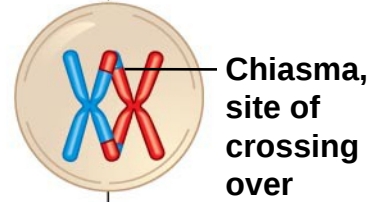
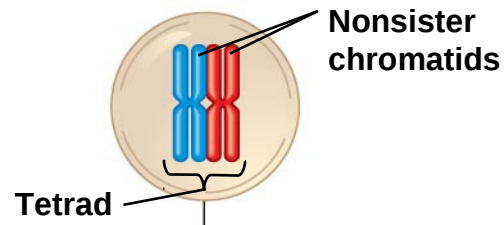
- Maternal set of chromosomes
- Paternal set of chromosomes



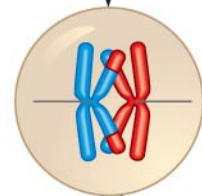
Meiosis: independent distribution chromosomes



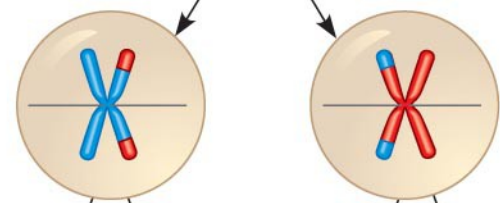
**Prophase I  
of meiosis**



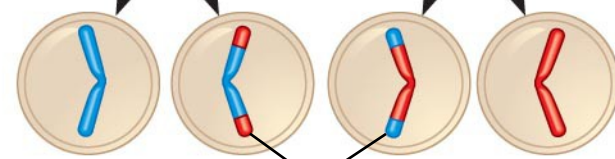
**Metaphase I**



**Metaphase II**



**Daughter cells**



**Recombinant chromosomes**

Meiosis: crossing over