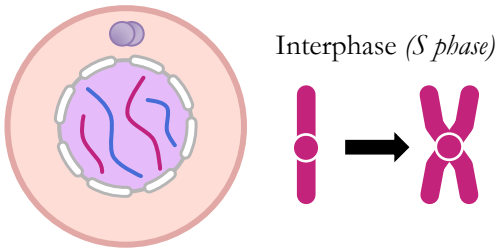
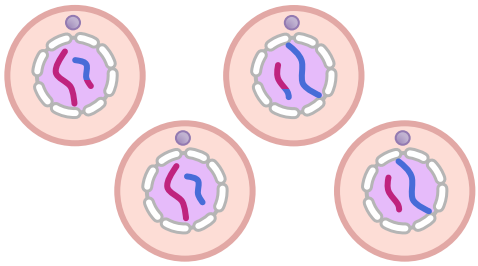
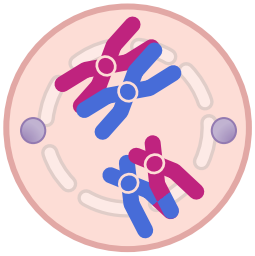
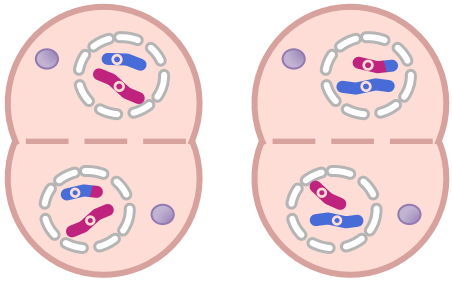
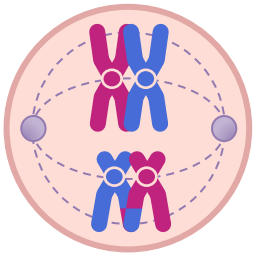
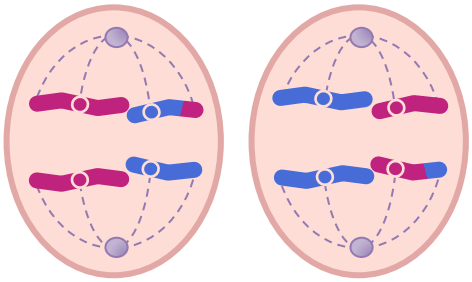
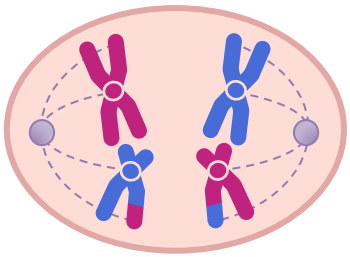
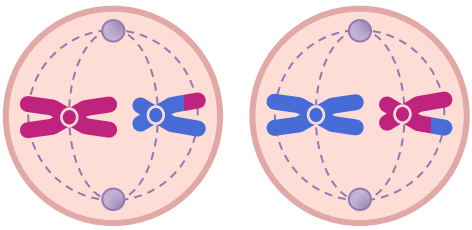
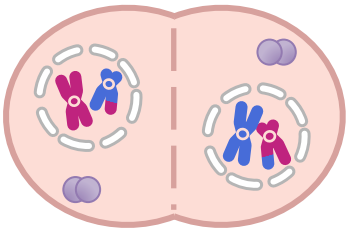
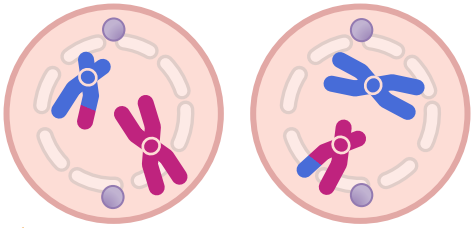
TOPIC 3.3: STAGES OF MEIOSIS

Stage	Diagram	Diagram	Stage
Before (1 × 2n)			**After** (4 × n)
Prophase I (2n)			**Cytokinesis** (2n → n) × 4 **Telophase II** (2n) × 2
Metaphase I (2n)			**Anaphase II** (n → 2n) × 2
Anaphase I (2n)			**Metaphase II** (n) × 2
Telophase I (2n) **Cytokinesis** (2n → n) × 2			**Prophase II** (n) × 2

Meiosis I Summary	Meiosis II Summary
• Is a reduction division (diploid → haploid) • Separates the homologous chromosomes • Crossing over may occur during Prophase I to create genetically divergent sister chromatids	• Is akin to a mitotic division (but of haploid cells) • Separates the sister chromatids • Occurs because DNA is replicated in interphase to create chromosomes with sister chromatids