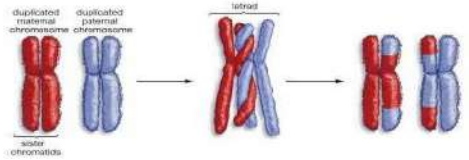
Biology

Learning goal: Assess their understanding of meiosis, genetics, evolution and population ecology



Page 04

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Collect Chapter 07 graphic definitions

Complete Chapter 07 vocabulary check

- **The vocabulary check will be pasted on page 04 of your notebook after it is graded and returned**

4
Genetic variation and assortment
Evolution and reproduction

3
Events of meiosis, variation and reproduction

2
Steps of meiosis basic definitions

1
Mitosis vs meiosis, sexual vs asexual

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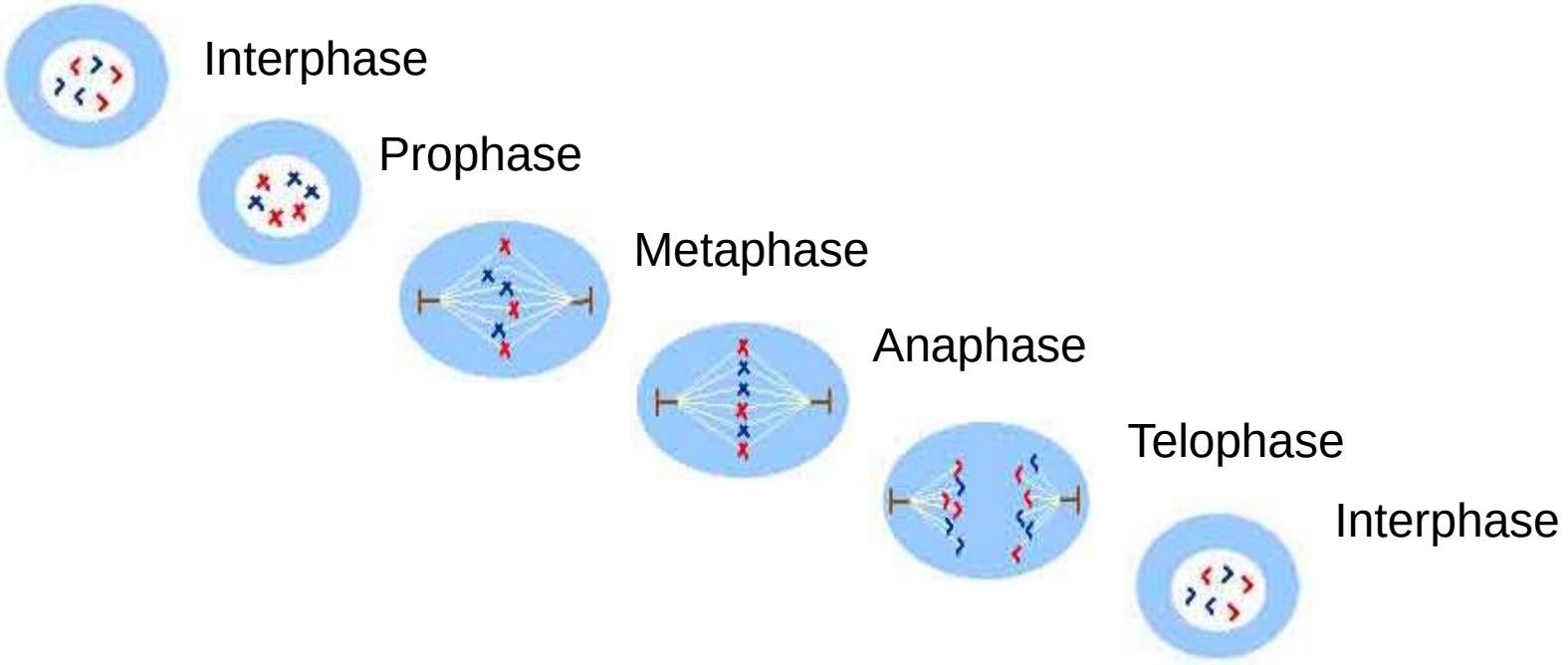
Warm up: Mitosis review

What are the five steps to mitosis and what do they look like? (*Hint: think of the work ipmat*)



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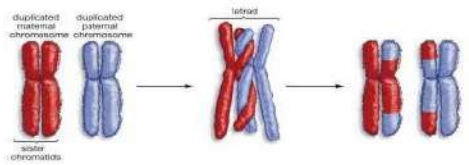

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Learning scale:

1	2	3	4
Differentiate between mitosis and meiosis, sexual and asexual reproduction.	Define spermatogenesis and oogenesis. List the steps to meiosis. Define sexual and asexual reproduction.	Summarize the events the occur during meiosis. Differentiate between sexual and asexual reproduction and the correlation of genetic variation.	Explain how genetic variation is a function of crossing-over and independent assortment during spermatogenesis and oogenesis. Evaluate the genetic and evolutionary advantages to sexual versus asexual reproduction.

Student's self-evaluation: *Complete at home or at the end of class, use the 4-3-2-1 Learning scale (two to three sentences).*

Homework: Complete the graphic definition.

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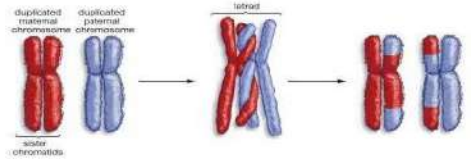

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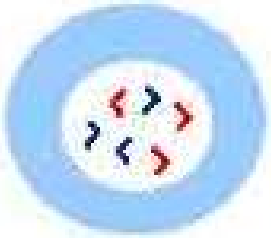
Meiosis

- Two cells division by which eggs and sperm are produced.
- The production of sex cells, which are not genetically identical



Parent cell has 2n number chromosomes

Each new cell has n number chromosomes

What are 2n and n equal to in this example?

2n = 6
Diploid

n = 3
Haploid

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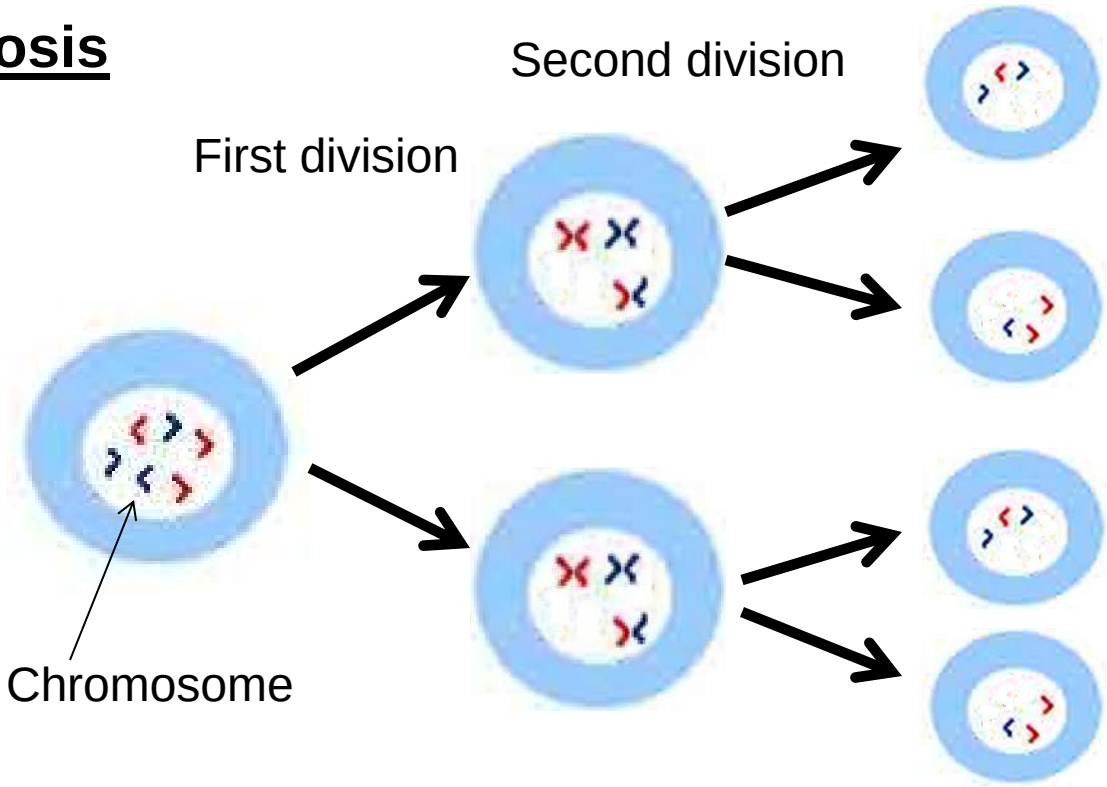
Meiosis



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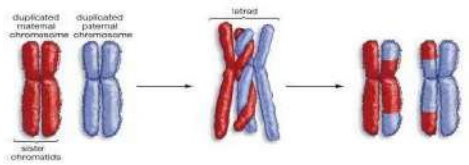

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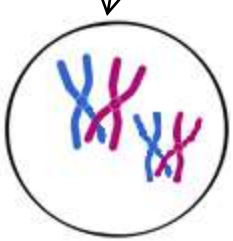
Meiosis has two stages: I and II

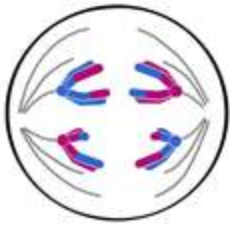
Stages of Meiosis I *or PMAT I*

Cell starts with 2n chromosomes that duplicate to become chromatids in Interphase

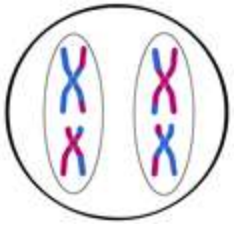


Prophase I
Crossing over adds genetic variation

Metaphase I
Homologous chromosomes pair up

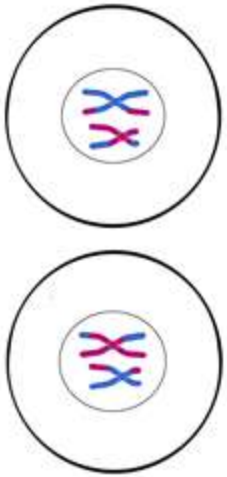


Anaphase I
Chromatids DO NOT split at centromere As they do in anaphase of mitosis



Telophase I
Homologous chromosomes split

End of meiosis I: Cells now have n chromosomes



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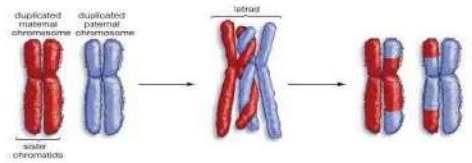

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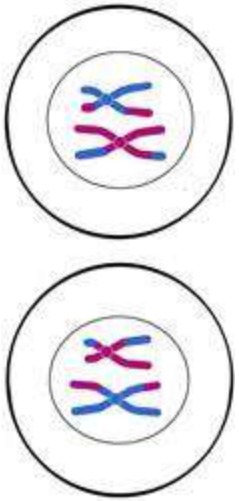
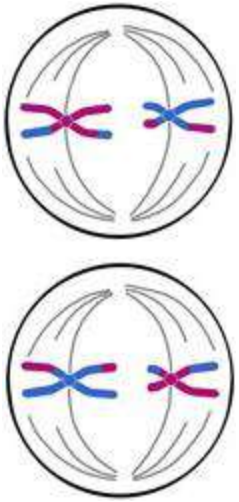
Meiosis has two stages: I and II

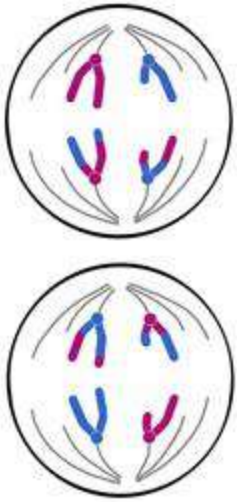
Stages of Meiosis II *or PMAT II*



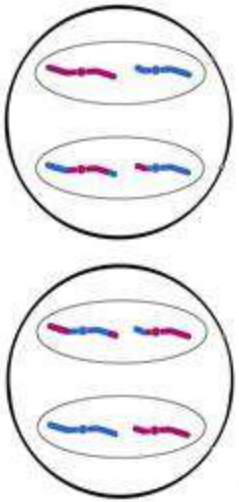
Prophase II



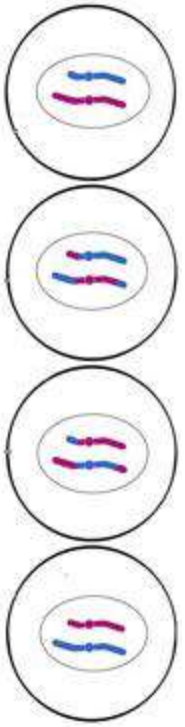
Metaphase II



Anaphase II



Telophase II



End of meiosis II:
Reproductive cells

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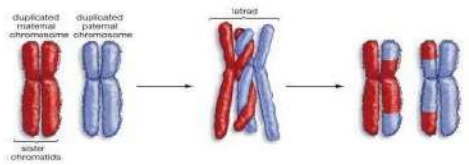

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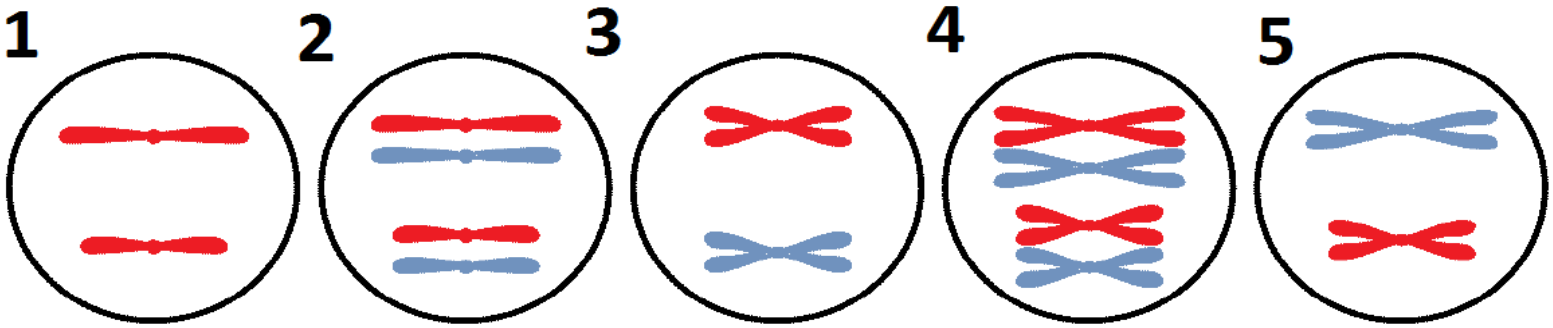
Review of Meiosis I and II



Which of the diagrams above depicts a cell at the beginning of mitosis?

4

Which of the diagrams above depicts a cell at the end of meiosis I?

5

Which of the diagrams above depicts a cell at the end of meiosis 2?

1

Which of the diagrams above depicts a cell at the end of mitosis?

2

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