

What is the Cell Cycle?

What are the two main phases of the Cell Cycle?

a)

b)

What are the two main types of Eukaryotic cell division and what are their functions?

a)

b)

In contrast to Eukaryotes, how do Prokaryote cells (bacteria) divide?

Mitosis: (IPMAT)

1) Interphase: What two things occur during Interphase?

a)

b)

What are Homologous chromosomes?

What is a Chromatid?

What are Sister Chromatids?

What is a Centromere?

What is a Kinetochore?

2) Cell division:

Prophase: What happens during Prophase?

a)

b)

c)

d)

What is a Microtubule?

What is a Centriole?

Metaphase: What happens during Metaphase?

a)

What are Karyotypes?

Anaphase: What happens during Anaphase?

a) Kinetochore microtubules

b) Polar microtubules

What separates during Anaphase of Mitosis?

Telophase: What happens during Telophase?

a)

b)

c)

d)

e)

What is different about Cytokinesis in plant cells?

What are the final products of Mitosis?

Meiosis:

What happens during Meiosis 1?

Is there DNA replication during Meiosis 1?

What separates at the end of Meiosis 1?

How many daughter cells are produced after Meiosis 1?

What happens during Meiosis 2?

Is there DNA replication during Meiosis 2?

How many cells start Meiosis 2?

What separates during meiosis 2?

How many daughter cells are produced at the end of Meiosis 2?

Are those cells haploid or diploid?

In human females, three of the four cells produced from meiosis 2 become what?

In human males, how many of the cells become sperm cells? *All four.*

What do the terms 'crossing over' and 'recombination' refer to (they mean the same thing)?

Why is recombination important?

When does crossing over occur?

What does radiation do to chromosomes?

What is the genetic basis of Down Syndrome?