

Name key

Date _____

CELL DIVISION WORKSHEET

Compare the nuclear and chromosomal activities in mitosis and meiosis by completing the following table.

ACTIVITIES	MITOSIS	MEIOSIS
Synapsis	Synapsis does not occur during Mitosis	Synapsis occurs in meiosis during prophase I.
Crossing Over	Crossing over does not occur during mitosis.	Crossing over does not occur during mitosis.
When Centromeres Split	Centromeres are split during anaphase because that is when the centromeres are being pulled apart.	Centromeres only split during anaphase.
Chromosomes Structure and Movement During Anaphase	The chromosomes sister chromatids separate and move to opposite sides.	Anaphase I: The double chromosomes separate into its own pair of chromosomes.
		Anaphase II: The chromosomes split into one chromatid.
Number of Divisions	In Mitosis, there is only one division.	In meiosis, there are two divisions.
Number of Cells Resulting	Two sister cells are created.	Four daughter cells are created.
Number of Chromosomes on Daughter Cells	Each daughter cell created has the exact same number of chromosomes which is 46	Each daughter cell created has 23 chromosomes
Genetic Similarity of Daughter Cells to Parent Cells	In mitosis, the daughter cells are genetically identical to the parent as well as each other.	In meiosis, the daughter cells are not genetically identical.