**Mitosis in *Ascaris* and Onion Root Tip**

You will, with a partner, try to identify the major phases of mitotic cell division in animal (Ascaris) and plant (onion) cells.

You will use a piece of notebook paper to draw the cell structures observed during your investigation for each phase of the process. The following terms will be your responsibility:

*Cell wall*

*Cell membrane*

*Nuclear membrane* (fully intact during interphase and disintegrated during prophase)

*Condensed chromatin* (once chromosomes are visible, they are considered to be condensed)

*De-condensed chromatin* (loose)

*Chromosome* (the mobile form of DNA)

*Centromere* (the chromosome “middle” that is the point where spindle fibers pull it to its pole)

*Sister chromatid* (an identical copy of one homologous, or parental, chromosome)

*Homologous chromosome* (each of the chromosomes in a pair, one from mom, one from dad)

*Nucleus*

*Nucleolus* (dense center of nucleus, where RNA synthesis occurs)

*Centrosome* (centriole & spindle fiber) – chromosome moving equipment, “cowboys” & “lassoos”…

*Poles of the cell*

*Cell plate* (reforms only in plant cells during telophase – the reformation of the cell wall…)

*Cleavage Furrow* (the “pinching in” of the cells as telophase begins to split the cells into cytokinesis)

*Daughter cells* (the newly created cells that are the product of mitosis)