**SIMULATING THE CELL CYCLE**

Using the pop-it beads provided by your teacher to model chromosomes, demonstrate your understanding of the process of mitosis through modeling the steps of the cell cycle.

Begin with a cell with 4 chromosomes (2 pairs of homologous chromosomes, therefore the diploid number = 4). One color represents chromosomes from the father and the other, the mother. The magnet will represent the centromere. Use construction paper to represent the rest of the cell. Draw the cell membrane and centrioles and use the plastic bag to represent the nucleus. The pipe cleaners will be used to represent spindle fibers.

In your simulation of the stages of the cell cycle, use the appropriate vocabulary terms, including, but not limited to:

* Centromere \* diploid \* chromatid \* centrioles
* Spindle fibers \* interphase \* prophase \* G1
* S \* anaphase \* G2 \* metaphase
* telophase \* cleavage furrow \* cytokinesis \* somatic

