**Mitosis and Meiosis Motion Picture Flip Books**

(Student Handout)

**Purpose:** To compare and contrast the processes of mitosis and meiosis

 **Background:** Mitosis and meiosis (also known as reduction division) are different processes by which cells reproduce. Cells within a plant or animal are constantly undergoing these processes to replace worn-out cells, grow, and produce offspring. Humans have 46 chromosomes in each somatic (regular body) cell. Since that is **double** the number of chromosomes found in gametes (sex cells), we refer to it as the **diploid** number. The number of chromosomes found in gametes is 23. Since it is **half** the number in the somatic cell, it is called the **haploid** number of chromosomes.

 **Materials/Equipment: (**per student, per booklet)

5 sheets of white paper (copy paper is fine).

1 set of colored pencils or crayons per student

1 textbook with the stages of mitosis and meiosis in it per student

1 stapler for the whole class

1 pair of scissors for every 1 or 2 students

**Safety Considerations:** Always follow lab safety procedures. No stabbing each other with scissors. (Please)

**Procedure:**

This activity will be done individually.

1. Get the materials from the front stock table. Cut 30 small pages for each flipbook. They should be about 6" x 4." Make them all the same size in order for someone to easily flip through the book,

2. Look at a diagram of the stages of MITOSIS in the textbook. The names of the stages are not important for this activity, just the pictures of what is happening inside the cell.

3. Use colored pencils or a regular pencil and crayons to draw the changes that take place as a cell divides. The pictures should be drawn close to the free edge of the pad, in order for them to be visible when the pages are flipped.

4. Each page should vary only slightly from the preceding one to show the very gradual changes that
 take place inside the nucleus of the cell. No words are necessary.
5. After drawing and coloring the flipbook for mitosis, make a cover for it to include the following.  **Name for asexual reproduction of body cells
 Purpose
 Number of chromosomes in nucleus at beginning and at end of process
 Type of cells in which this reproduction occurs**6. Staple the book together.
8. Enjoy your motion picture cell reproduction flipbooks!