

## **LAB 10: The Mechanisms of Life: Cell division**

**PURPOSE:** Learn how cells divide to produce either new cells or gametes.

**p. 59-60 Section 5.1 Introduction to the cell cycle.** Be able to recognize and name the stages of the cell cycle and identify what is happening in each.

### **p. 61-67 Mitosis**

- \_\_ view models of animal mitosis
- \_\_ view slides of whitefish blastula (at desk)
- \_\_ view models of plant mitosis
- \_\_ view slides of *Allium sp.* root tip (at desk)

**Goal:** Given a picture or slide of each stage in mitosis be able to name the stage and say what is happening.

### **p. 68-72 Section 5.2 Gametogenesis** by the process of **Meiosis**

- \_\_ view models of oogenesis and spermatogenesis (demo scopes)
- \_\_ view slides of oogenesis and spermatogenesis (demo scopes)

**Goal:** be able to state differences between the oogenesis and spermatogenesis.

### **p. 73-77 Meiosis exercise and review**

- \_\_ simulate meiosis using pop-it beads

**Goals:** Given a picture or slide of each stage in meiosis be able to name the stage and say what is happening. Given a parent cell with any number of chromosomes, be able to trace the chromosomes step by step through mitosis or meiosis.

**Use slide machine:** Quiz yourself and your team by randomly selecting projected slides... identify whether the slide is *Allium sp.* or whitefish, then identify the stage in cell cycle/cell division (PMAT).

**p. 78** Be able to answer all end of chapter questions.