**Biology Cornell Notes: “Active Transport & Homeostasis”**

### STUDY QUESTIONS:

**What is Active Transport?**  
(DOK1)

**How does a cell move substances against its concentration gradient?**  
(DOK2)

**Compare and contrast protein pumps and bulk transport.**  
(DOK3)

### NOTES:

**Active Transport**

- Molecules move across the membrane _______________ their _______________.
- (Low to High)
- _______________ is required.
- **2 Types:**
  1. Protein Pumps
  2. Bulk Transport

**Protein Pumps**

- Transport small molecules and ions **AGAINST** their concentration gradients (_________→___________) using _______________.

**Bulk Transport**

- Larger molecules (proteins, starch) are transported by _______________.
  - **Endocytosis:** vesicles move substances ____________.
  - **Exocytosis:** vesicles move substances ____________.

**Special Types of Endocytosis:**

- **Phagocytosis:** ________________
- **Pinocytosis:** ________________

**Homeostasis**

- **Homeo=** ________________
- **Stasis=** ________________
- The process by which an ________________ is kept in ________________, or stable, in spite of changes in the external environment.

**Examples:**

- Internal Temperature (sweating removes excess body heat)
- Water Balance (kidneys adjust water amount in urine)
- A physical response to stress (breathing & heart rate increases, pupils dilate, sweating)

### SUMMARY: