**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hr. \_\_\_\_\_\_\_\_\_**

**Chapter 7.3 –Cells and Their Environment**

1. **Cell Membrane**

* **All Cells \_\_\_\_\_\_\_\_\_\_\_\_\_\_ by a \_\_\_\_\_\_\_\_\_\_ membrane called a \_\_\_\_\_\_\_\_\_\_\_\_\_.**
* **\_\_\_\_\_\_\_\_\_\_\_\_ the cell and helps move \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in and out of the \_\_\_\_\_\_.**
* **By \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ transport, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ helps the cell maintain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**Homeostasis**

* **The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of stable \_\_\_\_\_\_\_\_\_\_\_\_\_ conditions in a changing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* **One way that a cell maintains \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is by \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the movement of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ across the cell \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

1. **Cell Membrane Structure**

**Lipid Bilayer**

* **Phospholipid- a \_\_\_\_\_\_\_\_\_\_\_ lipid made of a \_\_\_\_\_\_\_\_\_\_\_\_ “ head” and two \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ acid tails.**
* **The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ head is hydrophilic ( water-loving).**
* **The fatty acid tails are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (water-fearing).**

**Barrier**

* **The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ form a barrier through which only small, fat soluble ( non-polar),\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can pass.**
* **Often called “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”.**

1. **Cell Transport**

* **Passive Transport- transport of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ across cell membrane DOES NOT require \_\_\_\_\_\_\_\_\_\_\_ energy.**
* **Active Transport- transport of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ across cell membrane \_\_\_\_\_\_\_\_\_\_\_\_\_ ATP energy.**

**Types of Passive Transport**

**1. Simple Diffusion**

* **The Movement of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from an area of high \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to low concentration.**
* **Small, fat-soluble \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can pass directly through the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**2 .Facilitated diffusion**

* **Transport proteins help substances that do not easily \_\_\_\_\_\_\_\_\_\_\_\_\_\_ across the \_\_\_\_\_\_\_\_\_\_\_\_\_ get across.**
* **Channel \_\_\_\_\_\_\_\_\_\_\_\_ (pores)**
* **Carrier \_\_\_\_\_\_\_\_\_\_\_\_**

**3. Osmosis**

* **The diffusion of \_\_\_\_\_\_\_\_\_\_\_\_ across a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ permeable membrane.**

1. **Predicting \_\_\_\_\_\_\_\_\_\_ Movement**
2. **Hypertonic Solutions**

* **\_\_\_\_\_\_\_\_\_\_\_\_ moves \_\_\_\_\_\_\_\_\_ of the cell.**
* **The cell \_\_\_\_\_\_\_\_ water and \_\_\_\_\_\_\_\_\_\_\_.**

1. **Hypotonic Solutions**

* **\_\_\_\_\_\_\_\_\_\_ moves \_\_\_\_\_\_\_\_\_\_\_\_ the cell.**
* **The cell \_\_\_\_\_\_\_\_ water and \_\_\_\_\_\_\_\_\_\_\_\_\_ in size.**

1. **Isotonic Solutions**

* **Water \_\_\_\_\_\_\_\_\_\_\_\_ into and out of the cell at \_\_\_\_\_\_\_\_\_ rates.**
* **The cell \_\_\_\_\_\_\_\_\_\_ the \_\_\_\_\_\_\_\_\_\_\_\_ size.**

**Effects of Osmosis**

* **IF left unchecked, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ caused by a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ solution could cause a cell to \_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* **Cell walls in plants prevent the membrane from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ too much.**

1. **Bulk Transport**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**