

# Cell Transport Review Guide

## 1. Passive transport.

- Define it.
- How does it move according to the concentration gradient? (List all 3)
- Does it need energy?
- Describe the factors that may affect the rate of passive transport?
- What are the 3 main types?

## 2. Diffusion

- Define it
- How does it use a permeable membrane?
- Does it use energy?
- Diagram this movement
- Give 2 specific examples of molecules that use this

## 3. Facilitated diffusion

- Define it
- Does it use energy?
- Describe how particles/substances cross the membrane.
- Diagram this type of movement.
- Give an example.

## 4. Define osmosis.

- Define it
- Name the 3 types of solutions.
- Describe the concentration gradient on each side of the membrane for:  
Isotonic solutions, hypertonic solutions and hypotonic solutions
- Describe how water moves in each type of solution (isotonic, hypertonic, and hypotonic)
- Describe the end result of the cell in each type of solution (isotonic, hypertonic and hypotonic)
- Which type of solution is best for an animal cell and plant cell? Which is the worst for each?

## 5. Carrier protein

- Where are they in the plasma membrane?
- How do they work in active transport?
- How do they work in passive transport?
- What are other names for the carrier protein?

## 6. Cell membrane

- What are other names for the cell membrane?
- Diagram the lipid bilayer.
- Draw the head and tail ends.
- Where do the carrier proteins go in the membrane? Draw them on your picture.
- Be able to draw how the various examples of active transport function.
- Be able to draw how the various examples of passive transport function.

## 7. Active transport.

- a. Define it.
- b. How does it move according to the concentration gradient? (List all 3)
- c. Does it need energy?
- d. Describe the factors that may affect the rate of active transport?
- e. What are the 3 main types?

## 8. Endocytosis.

- a. Define it.
- b. Does it use energy?
- c. Describe how particles/substances cross the membrane.
- e. Diagram this type of movement.
- f. Name the 2 main types of endocytosis.
- g. Give a specific example for each in "f."

## 9. Exocytosis.

- a. Define it
- b. Does it use energy?
- c. Describe how particles/substances cross the membrane.
- e. Diagram this type of movement.
- f. Give a specific example of exocytosis.

## 10. Pumps

- a. Define it.
- b. What are other names for Pumps?
- c. Describe how particles/substances cross the membrane.
- d. Give specific examples of molecules that would move across the membrane this way.

## 11. Define the following words:

- a. homeostasis
- b. tissue
- c. organ
- d. organ system
- e. receptor

## 12. Homeostasis

- a. How does this work/function in unicellular organisms?
- b. How does this work/function in multicellular organisms?
- c. What is the purpose of having division of labor?
- d. Why is it important for cells to communicate between each other?