N5 CB2 Transport Across Cell Membranes **Learning Outcome Checklist**

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| Lessons | MC900432651[1] | by the end of each lesson you should know (including meanings of **key words**) |
| **Membrane Structure** |  | * **phospholipids** and **proteins** are the two main components of a membrane * identify phospholipids and proteins in a diagram of membrane structure. * the cell membrane is **selectively permeable,** allowing only some molecules to cross it**.** |
| **Passive Transport** |  | * **passive transport** requires **no energy** from the cell. * **passive transport** is **the movement of molecules down a concentration gradient** **from an area of high concentration to an area of low concentration.** * **osmosis** and **diffusion** are examples of passive transport. * **diffusion** is the movement of molecules down a concentration gradient from higher to lower concentration. * Examples of diffusion include – glucose diffusing from the blood to the cells for respiration, oxygen diffusing from the lungs to the blood to be take n to the cells * **osmosis** is the movement of **water molecules from a higher water concentration to a lower water concentration across a** **selectively permeable membrane**. * **animal cells** can **burst** if placed in a solution of higher water concentration or **shrink** if placed in a solution of lower water concentration * **plant cells** can become **turgid** if placed in a solution of higher water concentration or **plasmolysed** if placed in a solution of lower water concentration |
| **Active Transport** |  | * **active transport** is the movement of molecules andions **from an area of low concentration to an area of high concentration, against a concentration gradient.** * **energy** is required by **membrane proteins** for **active transport**. |