

شرح تركيب ووظائف الغشاء البلازمي



تم تحميل هذا الملف من موقع المناهج الإماراتية

موقع المناهج ← المناهج الإماراتية ← الصف العاشر ← أحياء ← الفصل الأول ← ملفات متنوعة ← الملف

تاريخ إضافة الملف على موقع المناهج: 2026-10-31 15:21:16

ملفات اكتب للمعلم اكتب للطالب | اختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل
منهج انجليزي | ملخصات وتقارير | مذكرات وبنوك | الامتحان النهائي | للمدرس

المزيد من مادة
أحياء:

إعداد: Gilgil Omar

التواصل الاجتماعي بحسب الصف العاشر



صفحة المناهج
الإماراتية على
فيسبوك

المزيد من الملفات بحسب الصف العاشر والمادة أحياء في الفصل الأول

شرح درس اكتشاف الخلية ونظرية الخلية

1

تحميل تطبيق المناهج للهواتف الذكية

تطبيق المناهج على Play Google (أندرويد)

تطبيق المناهج على Store App (آبل)

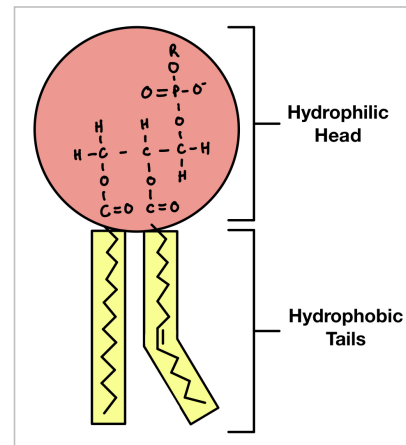
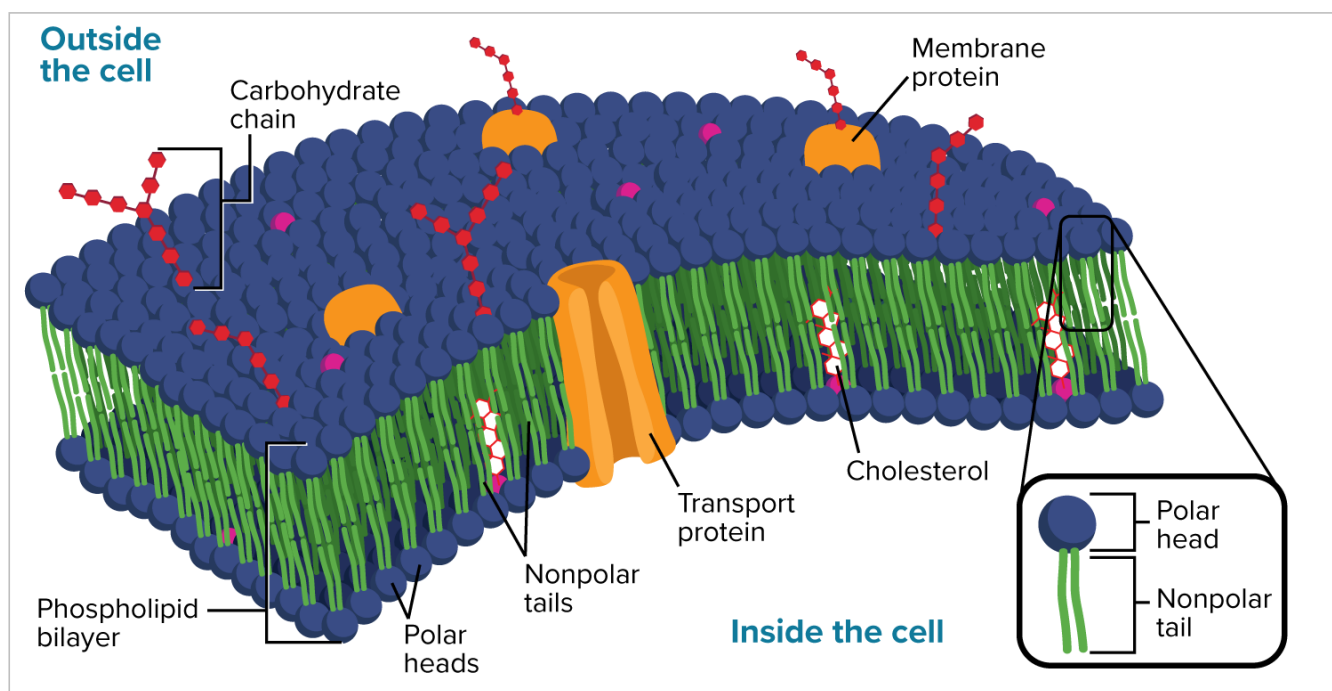


Unit 2 – Lesson 2

The Plasma Membrane

Structure of the Plasma Membrane

- Most of the molecules in the plasma membrane are **lipids**.
- The plasma membrane is composed of a **phospholipid bilayer**.
- **phospholipid** is a molecule that has a glycerol backbone, two fatty acid chains, and a phosphate-containing group.
- **phospholipid bilayer** – mean two layers of phospholipids arranged tail to tail.
 - ▶ **Polar heads** face outside and inside the cell.
 - ▶ **Nonpolar tails** found in the interior of the plasma membrane.
 - ▶ This arrangement allows the membrane to keep the internal and external environments separate.



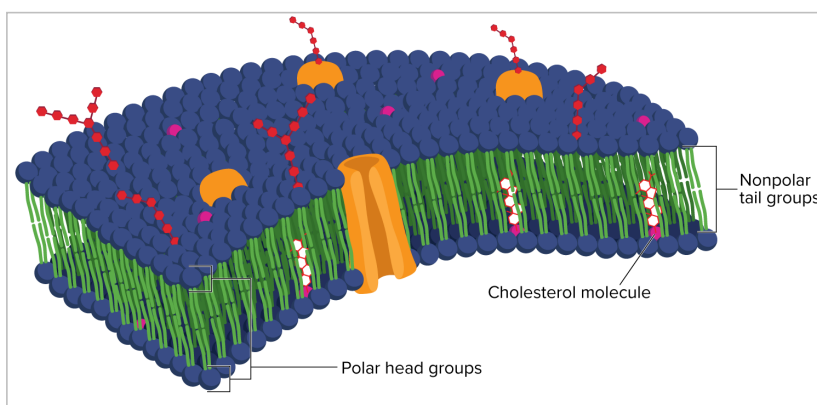


Unit 2 – Lesson 2

The Plasma Membrane

Structure of the Plasma Membrane

- The plasma membrane also contains **cholesterol, proteins, and carbohydrates.**
- **Proteins on outer surface** called **receptors** transmit signals to the inside of the cell.
- **Proteins at the inner surface** anchor the plasma membrane to the cell's internal support structure, giving the cell its shape.
- **Transport proteins:** proteins span the entire membrane and create tunnels; it's move substances and wastes through the membrane.
- **Cholesterol** prevents the fatty acid tails of the phospholipid bilayer from sticking together.
- Cholesterol contributes to the **fluidity** of the membrane.
- **Carbohydrates** define the cell's characteristics and help cells identify chemical signals.
- **Glycoproteins=carbohydrate +protein**
- **Glycolipid=carbohydrate + lipid**
- The **fluid mosaic model** describes the phospholipids in the bilayer as a "sea" in which other components move around, forming a pattern or mosaic on the cell surface.



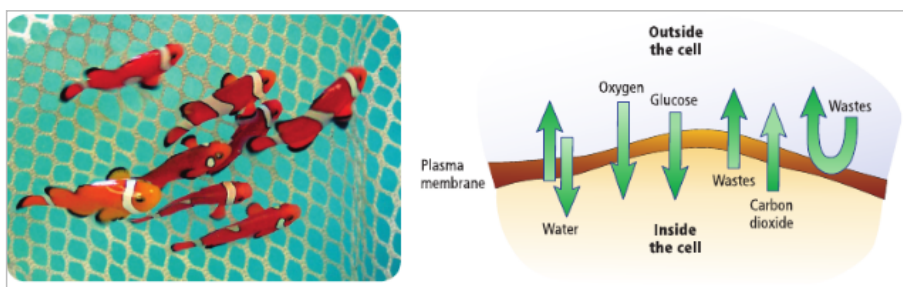


Unit 2 – Lesson 2

The Plasma Membrane

Function of the Plasma Membrane

- The process of maintaining balance in an organism's internal environment is called **homeostasis**.
- Plasma membrane forms a thin, flexible boundary between a cell and its environment.
- Plasma membrane allows nutrients to move into the cell and allows waste and other products to leave the cell.
- All prokaryotic cells and eukaryotic cells have a plasma membrane to separate them from the watery environments in which they exist.
- **Selective permeability** is a **key property of the plasma membrane** which means that they allow some substances to pass through while keeping others out.
- **Act as a barrier:** Control of how, when, and how much of various substances enter and leave a cell depends on the structure of the plasma membrane.



- **Water-soluble substances** will not move easily through the plasma membrane **because** they are stopped by the nonpolar regions.

Others Functions of Plasma Membrane

- **Allow cell recognition**
- **Provide anchoring sites for filaments of cytoskeleton**
- **Provide a binding site for enzymes**

