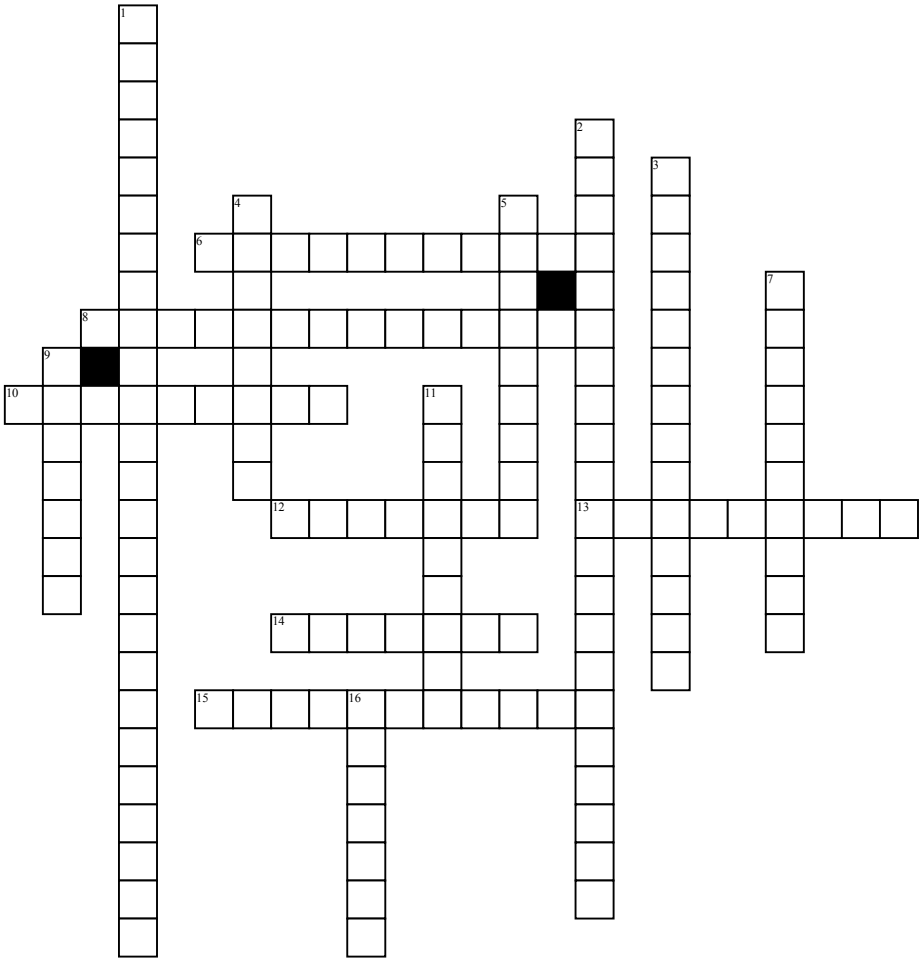
# Organelles in a cell



**Across**

**6.** This function mostly happens in the mitochondria within the cytoplasm. For it to be aerobic, oxygen and glucose react which then produces carbon dioxide and water and releases energy around the cell.
**8.** This organelle requires several other organelles to enable proteins to be amended for their purpose. They appear as flattened sacs called cisternae in a curved shape that often have vesicles close by.
**10.** This organelle is where ribosomes are made. It is made up of RNA and proteins and is found inside the nucleus of a cell. It also has an important function within the cell as it senses any cellular difficulties.
**12.** This specialised organelle has a key role in ensuring that anything required for a cell to survive is stored away and the waste eliminated from the cell. This organelle is often larger in shape and is surrounded by a membrane filled with fluid but has no cytoplasm in it. In plant cells this organelle maintains the cells stability.
**13.** This organelle is the smallest in the cell, it looks like a tiny spheroid particle. It sometimes attaches itself to rough endoplasmic reticulum and is found in most prokaryotic and eukaryotic cells. it only has one membrane that surrounds it but has a very important part to play in making proteins from amino acids.
**14.** The lysosomes can be found surrounded by a single membrane. They contain very powerful ------- which are used to break down and recycle all cellular waste, rebuild the cell membrane and responds to any invading substance set to harm the cell like bacteria and viruses.
**15.** Within the nucleus the chromatin - darkened patches are made up of protein, RNA and DNA. the proteins help to regulate the cells activities and when the cells divide the chromatin makes visible
.....

**Down**

**1.** This organelle is made up of a network of membranes which have ribosomes attached to them. They appear normally around the nuclear envelope. The ribosomes attached to the RER are where most of the proteins are made which are then transported around the cell.
**2.** The mitochondria produce most of this compound during respiration which is then used to provide energy in the cell.
**3.** This organelle protects the cell from its neighbour and keeps it separate. It is made of phospholipids and as such prevents water-based substances from getting into the cell. It makes sure that only certain molecules are allowed into the cell and helps communicate what is needed.
**4.** These organelles are responsible for transporting modified proteins to and from the golgi apparatus.
**5.** These membrane sacs are flat and are attached to the nuclear membrane. They make up the endoplasmic reticulum which makes and transports the lipids and proteins required in the cell.
**7.** This organelle always appears in the cell as a pair and are tubular shaped set at right angles to each other. It is in the cytoplasm near the nuclear envelope. It's role in the cell is to act as the cells skeletal system and can only be found in animal cells.
**9.** This single organelle is the largest in the cell and when it contains this organelle it is called a eukaryotic cell. Within it is where our genetic information is contained in the form of DNA. However, as the molecules are too large for them to be communicated around the body in this form, they are broken down by protein synthesis in smaller RNA molecules to be taken out of this organelle by the nuclear pores.
**11.** This organelle is surrounded by a membrane and fuses with vesicles when something needs digesting as these are essentially tiny bags of digestive enzymes. They also get rid of any unwanted organelles.
**16.** This function happens within cells to replace worn out cells and for growth. It also happens within the reproduction cells. If this isn't regulated properly this is when health problems such as cancer can occur.