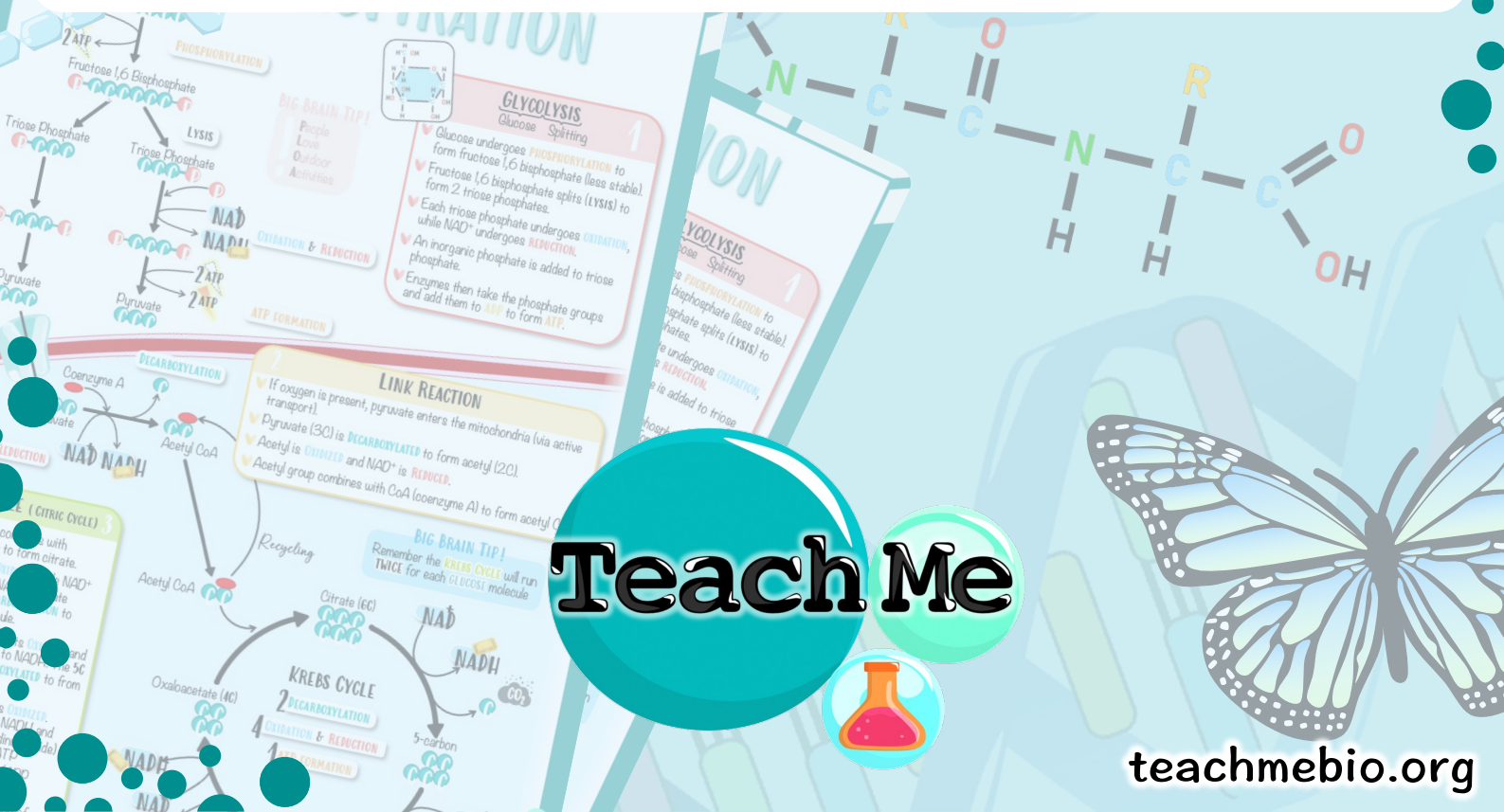


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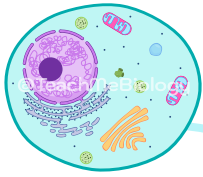
STUDY NOTES



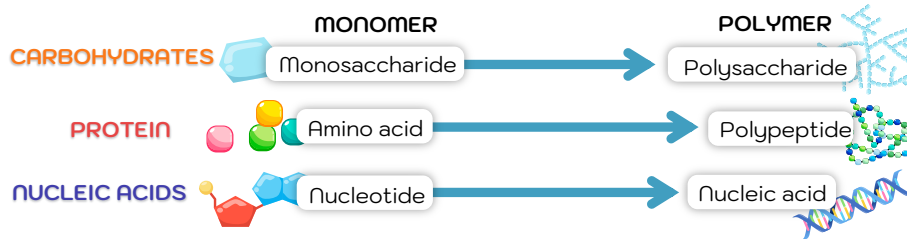
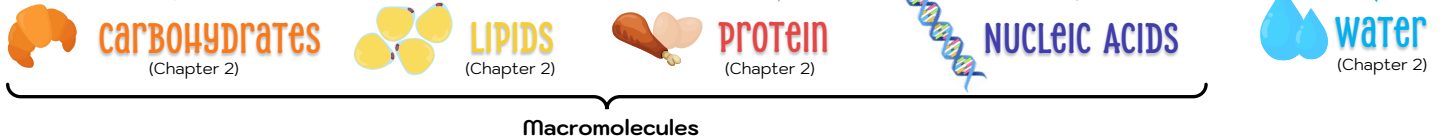
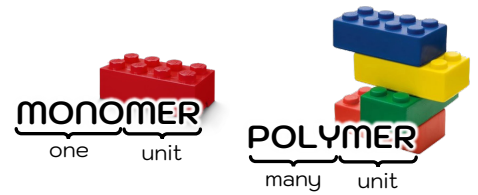
CHAPTER 6 – NUCLEIC ACIDS & PROTEIN SYNTHESIS DNA & RNA STRUCTURE



DNA & RNA STRUCTURE

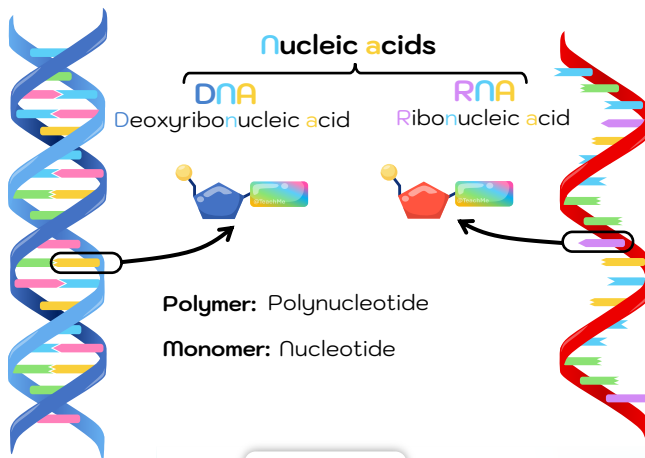


Macromolecules are large molecules built from smaller, repeating subunits known as **MONOMERS**. By linking many monomers together, you form a **POLYMER**.



Most macromolecules (except lipids) follow this same principle, but each type uses different monomers. You should by now already be familiar with carbohydrates, lipids and proteins – now, let's focus on **nucleic acids**!

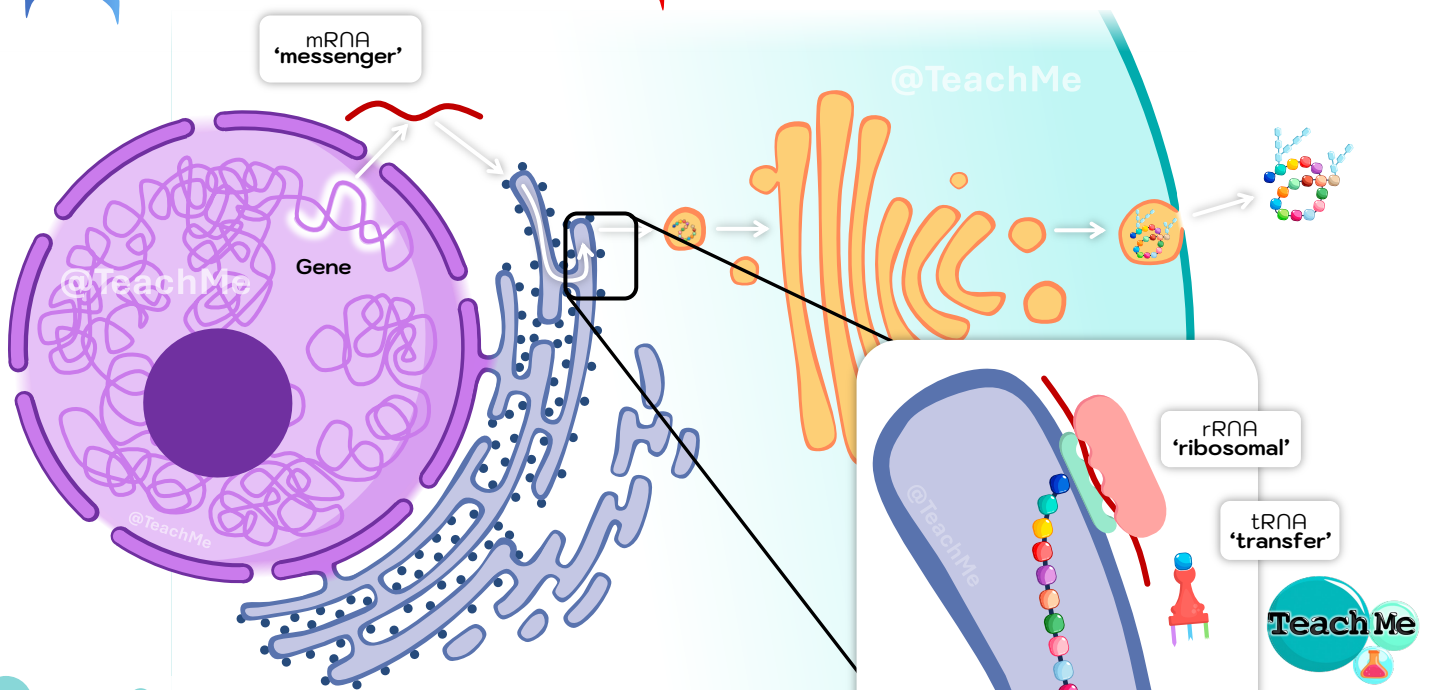
There are two types of nucleic acids you need to know about:

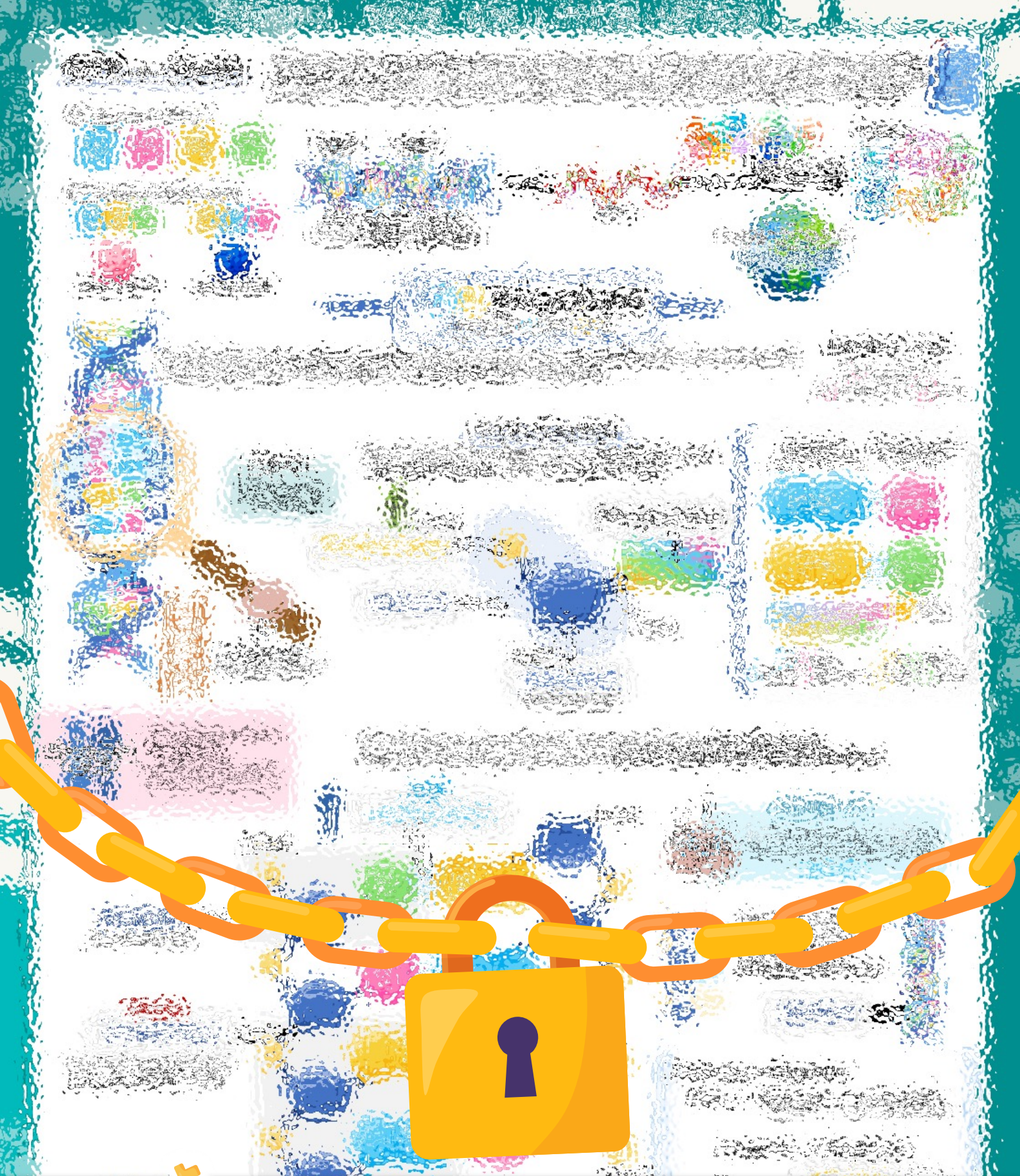


There are various types of RNA: mRNA, tRNA and rRNA (we learn more about in protein synthesis)

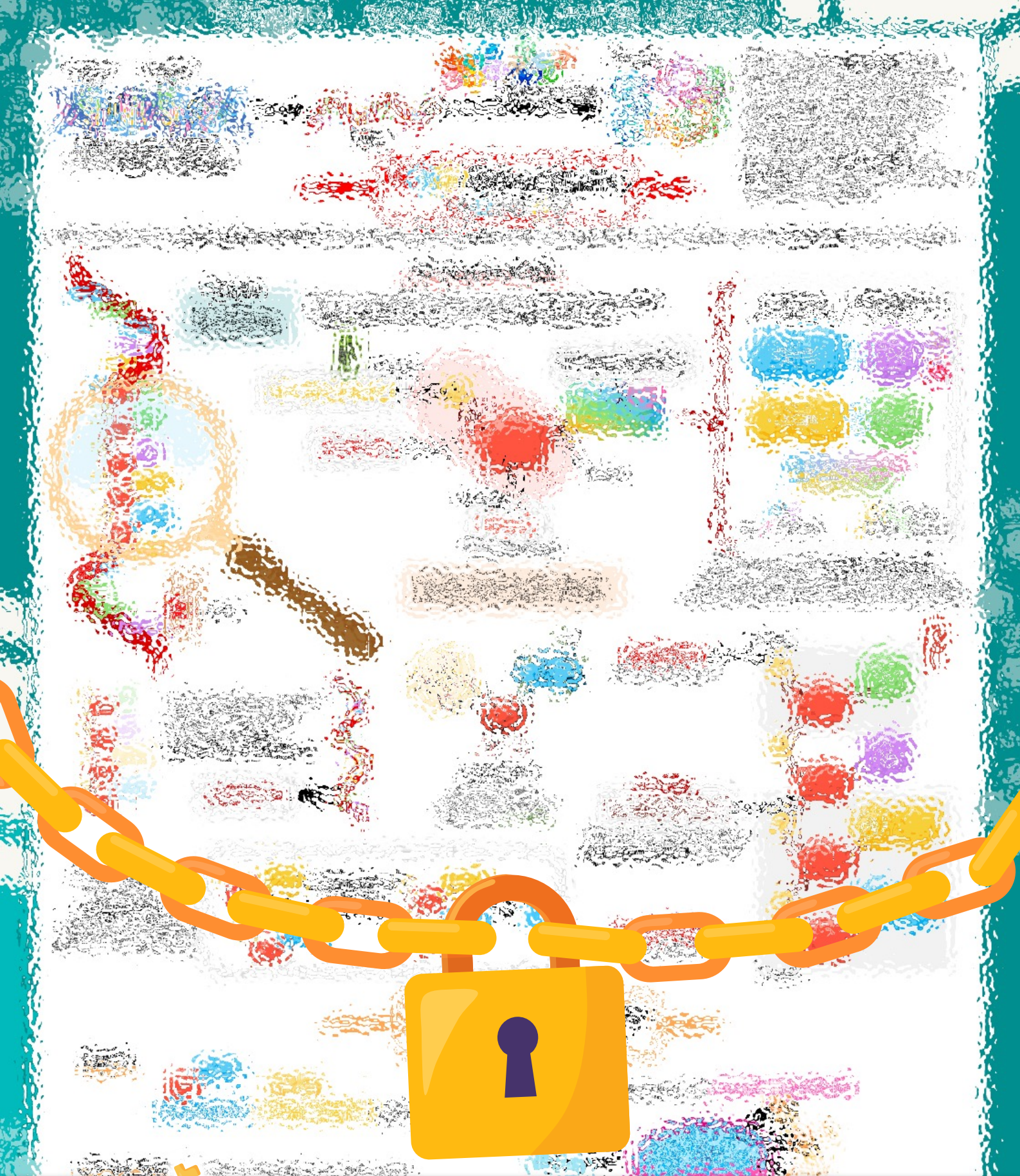
DNA contains many **genes**, each of which can be **transcribed** into **mRNA**. The mRNA leaves the nucleus and is **translated** by **ribosomes**, often attached to the rough endoplasmic reticulum (RER), to produce a **protein**. Proteins destined for secretion are then modified, sorted, and packaged by the Golgi apparatus before being transported to their destination.

To understand this process better in protein synthesis, we first need about DNA and RNA.

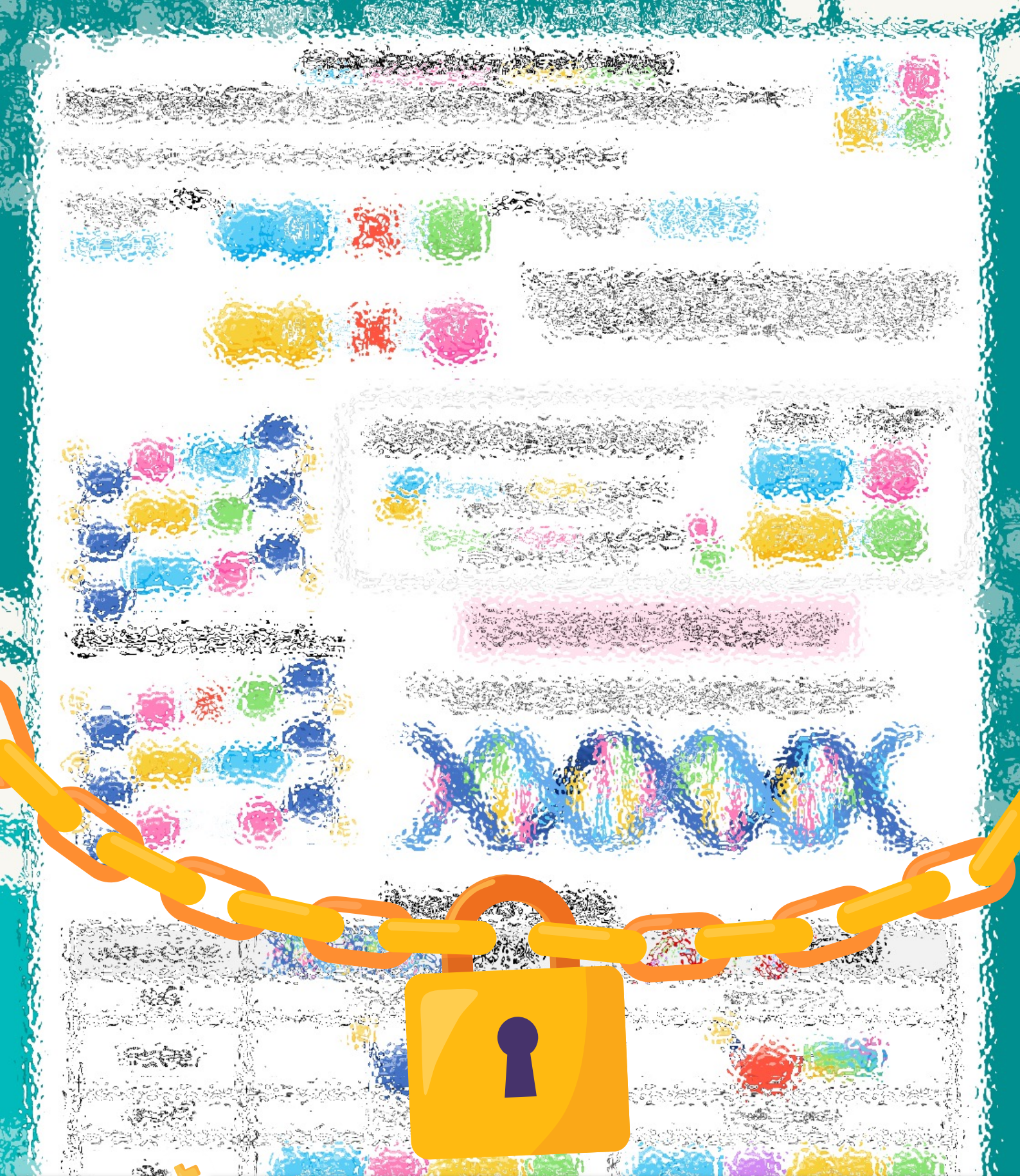




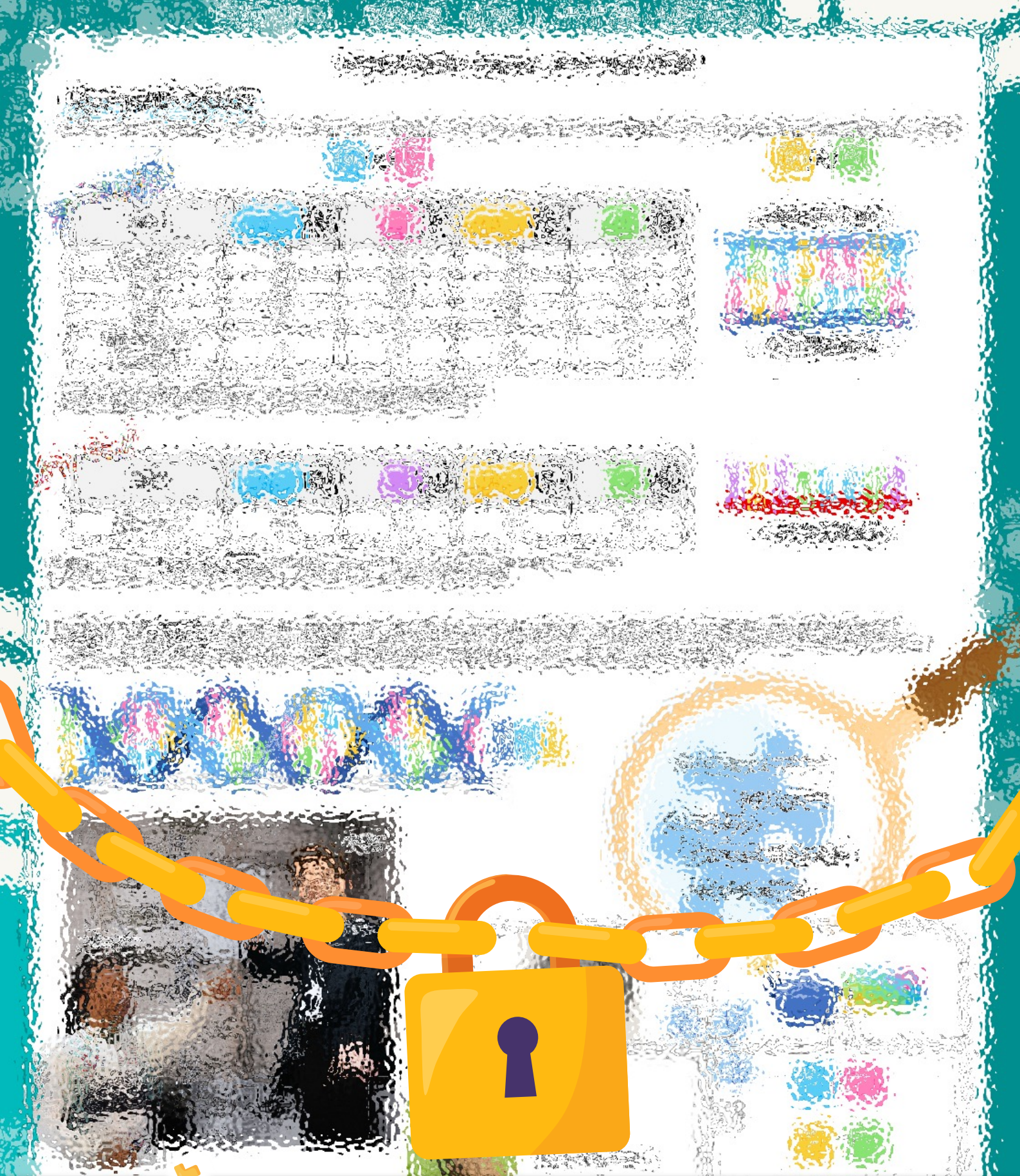
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UNIT 4

Unit 4: The structure and function of the cell. This unit covers the basic structure and function of the cell, including the cell membrane, nucleus, and organelles. It also discusses the process of cell division and the role of the cell in the body.

The cell is the basic unit of life. It is a small, specialized structure that carries out the functions of life. The cell is made up of various parts, each with a specific function. The cell membrane is the outer boundary of the cell. It controls what enters and leaves the cell. The nucleus is the control center of the cell. It contains the genetic material, which is passed on from parent to offspring. Other organelles, such as the mitochondria and ribosomes, are also present in the cell. They perform specific functions that are necessary for the cell to survive.

Cells are found in all living organisms. They are the building blocks of life. Without cells, there would be no life. The study of cells is called cell biology. It is a branch of biology that deals with the structure and function of cells. Cell biology is a very important field of study. It helps us to understand how life works at the cellular level.



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