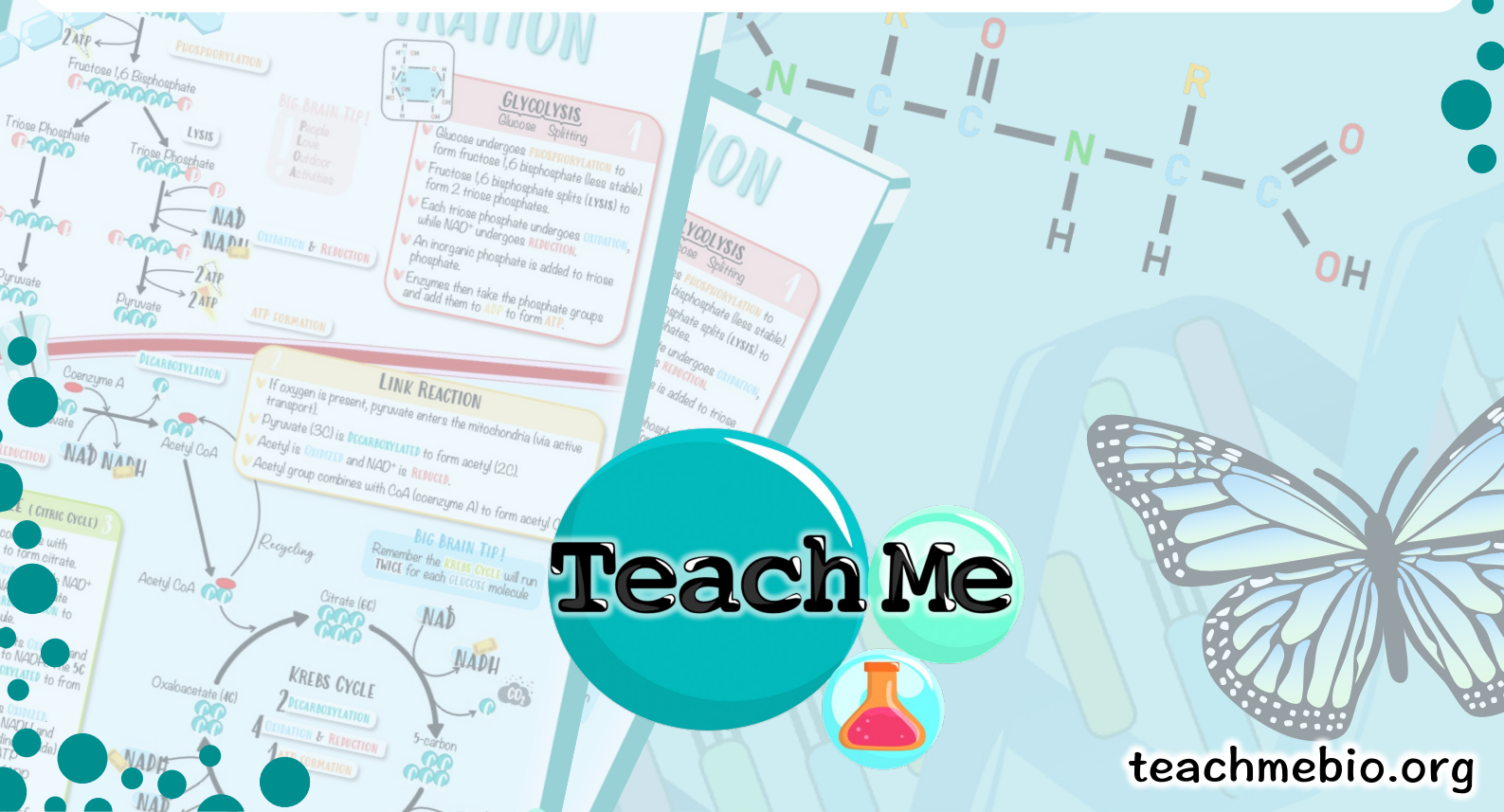


TeachMe

STUDY NOTES

CHAPTER 1 - CELL STRUCTURE

PROKARYOTIC CELLS



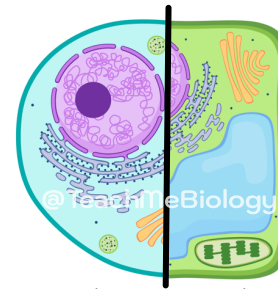
PROKARYOTIC CELLS

All living organisms can be categorized as **EUKARYOTIC** or **PROKARYOTIC**. As humans, we are made up of eukaryotic cells, and so are plants and other animals. Bacteria on the other hand are prokaryotes.

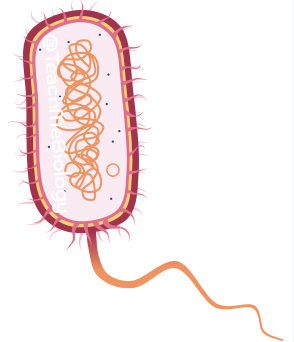
ALL LIVING ORGANISMS

EUKARYOTES

☀️ PROKARYOTES



(previous note)



PROKARYOTIC CELLS

"Before" "Nucleus"

Prokaryotic cells are found in: **Bacteria** + **Archea**

Prokaryotic cells are **NOT COMPARTMENTALIZED** they have no membrane-bound organelles. They comprise unicellular (one cell only) organisms exclusively, making them both smaller and simpler than eukaryotic cells.

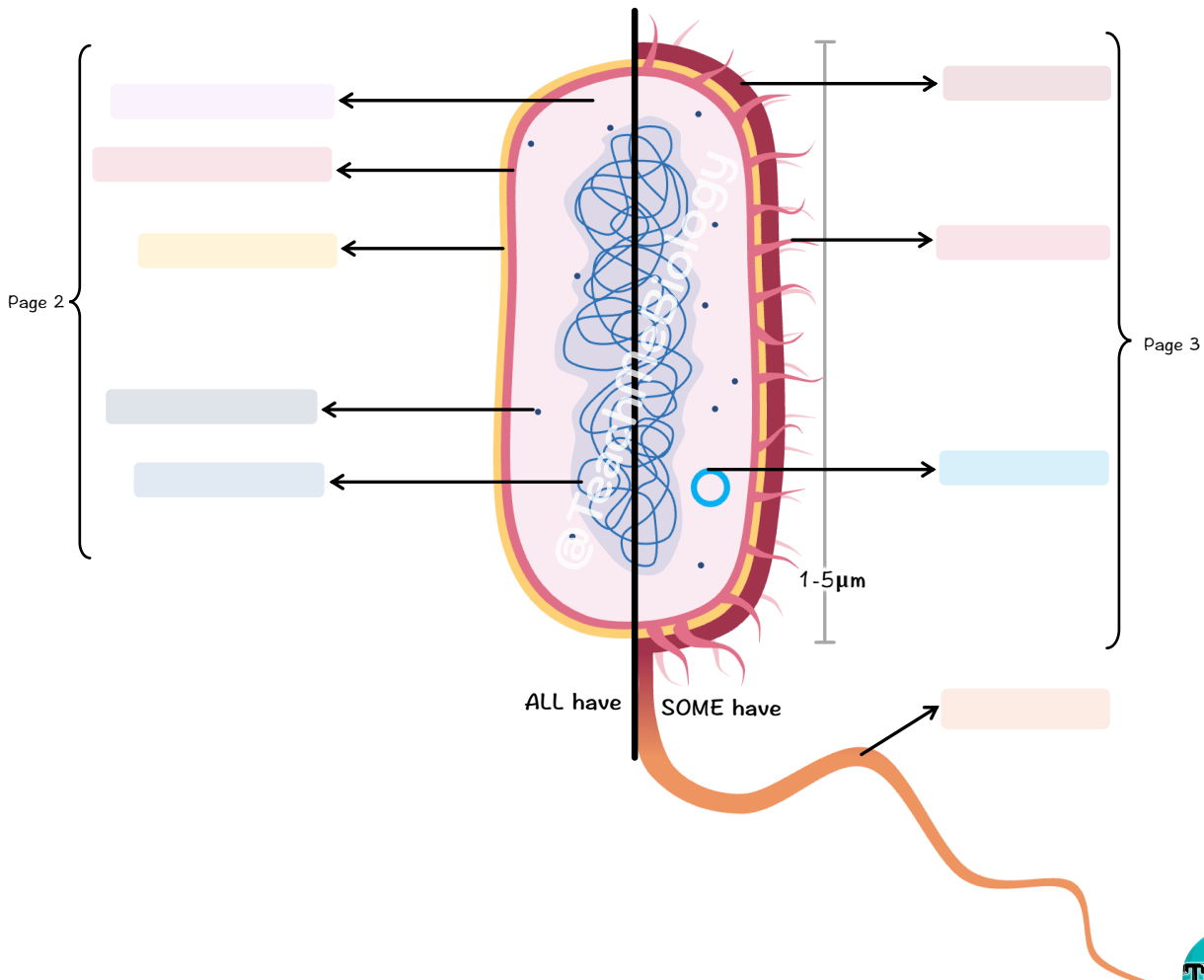
DID YOU KNOW?

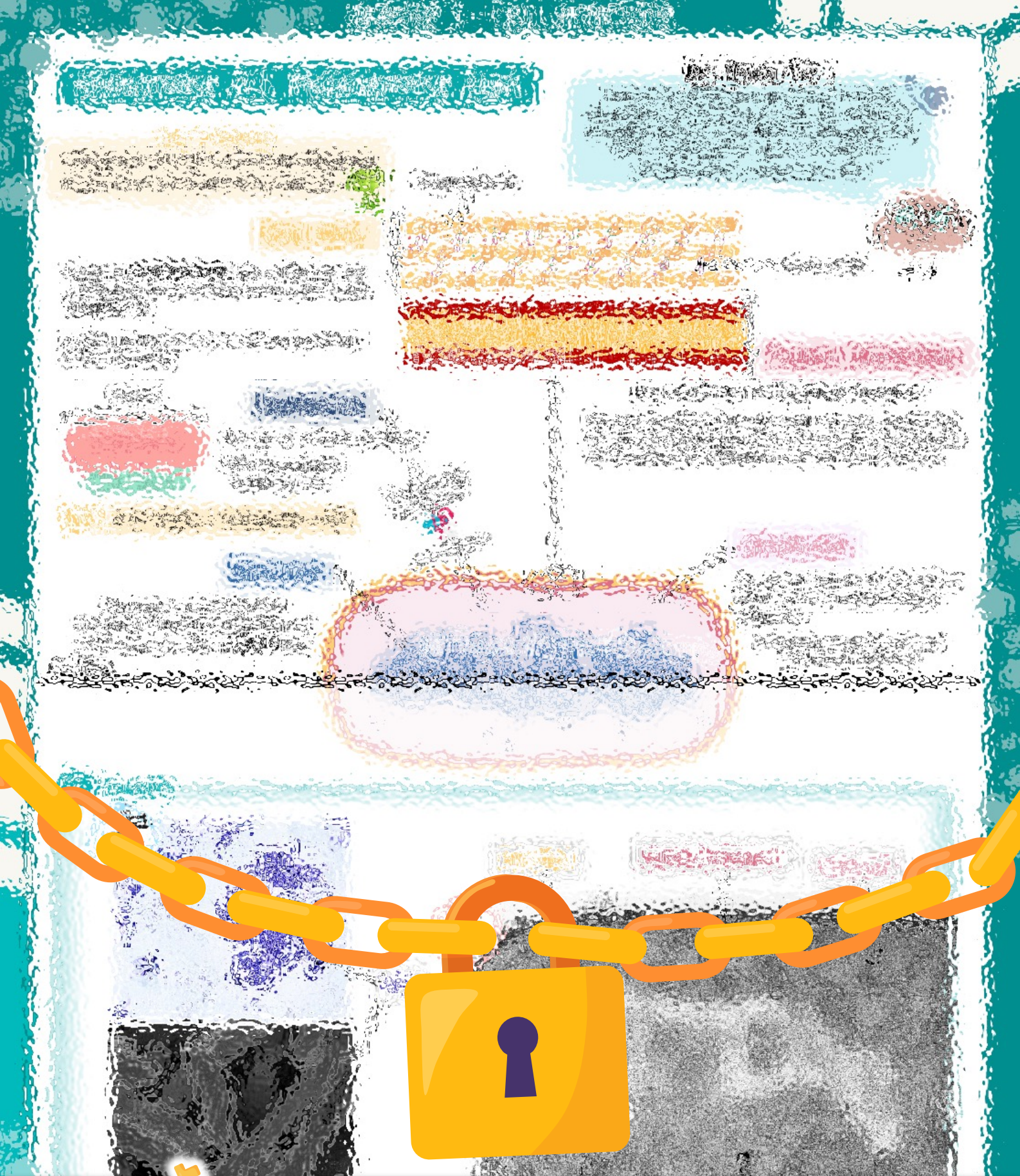
A common misconception is that all bacteria are bad—but many are actually good for you! In fact, your body is home to about **39 trillion bacterial cells** and **30 trillion eukaryotic cells**, meaning they slightly outnumber your own cells. Altogether, they weigh around 200 grams—about the size of an apple!



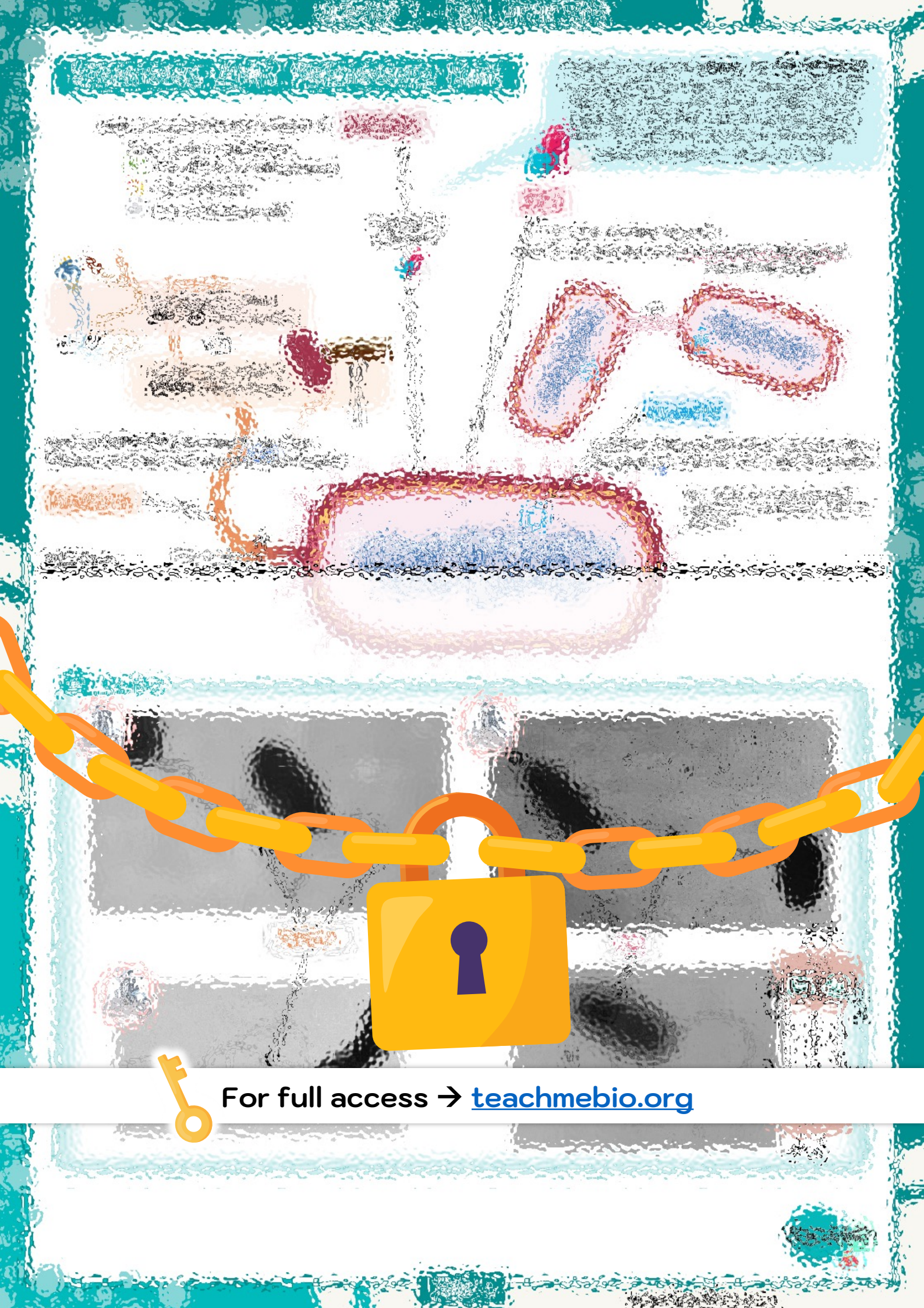
Learning more about prokaryotic cells helps us save ourselves by killing bacteria!

All the structures you need to know about for prokaryotic cells are shown below on the diagram. It can feel overwhelming in the beginning, but on the next page, we will go through each of the structures one-by-one — you can then come back to this page and test yourself by filling-in the name of each structure! (find the answer key on page 2 and 3)





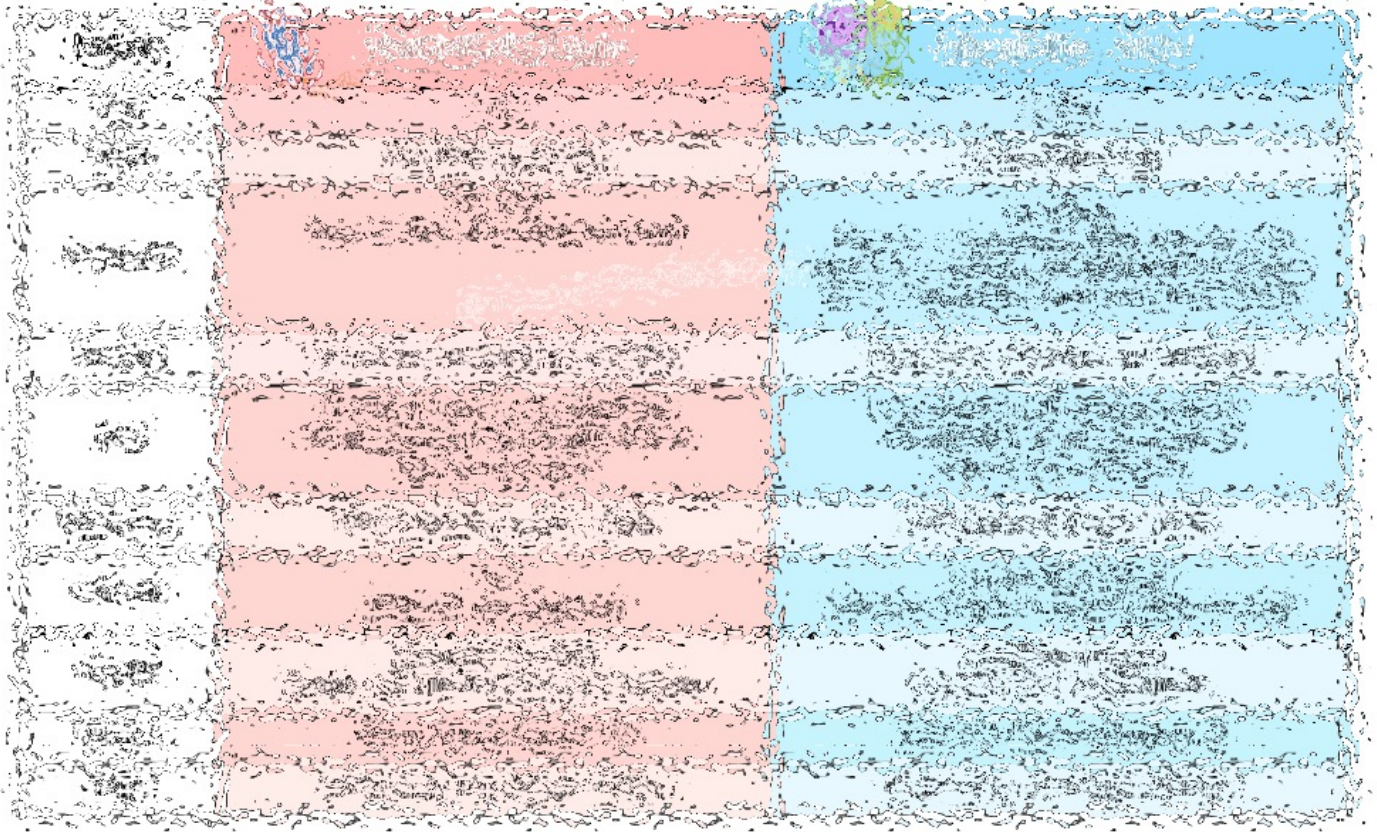
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The first part of the lesson is a short video showing the structure of DNA. The video is followed by a series of questions designed to test the student's understanding of the material. The questions are as follows:

1. What is the structure of DNA?
2. What are the components of DNA?
3. How is DNA replicated?
4. What is the role of DNA in the cell?
5. How is DNA packaged?
6. What is the difference between DNA and RNA?
7. How is RNA translated?
8. What is the role of RNA in the cell?
9. How is RNA packaged?
10. What is the difference between DNA and RNA?



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