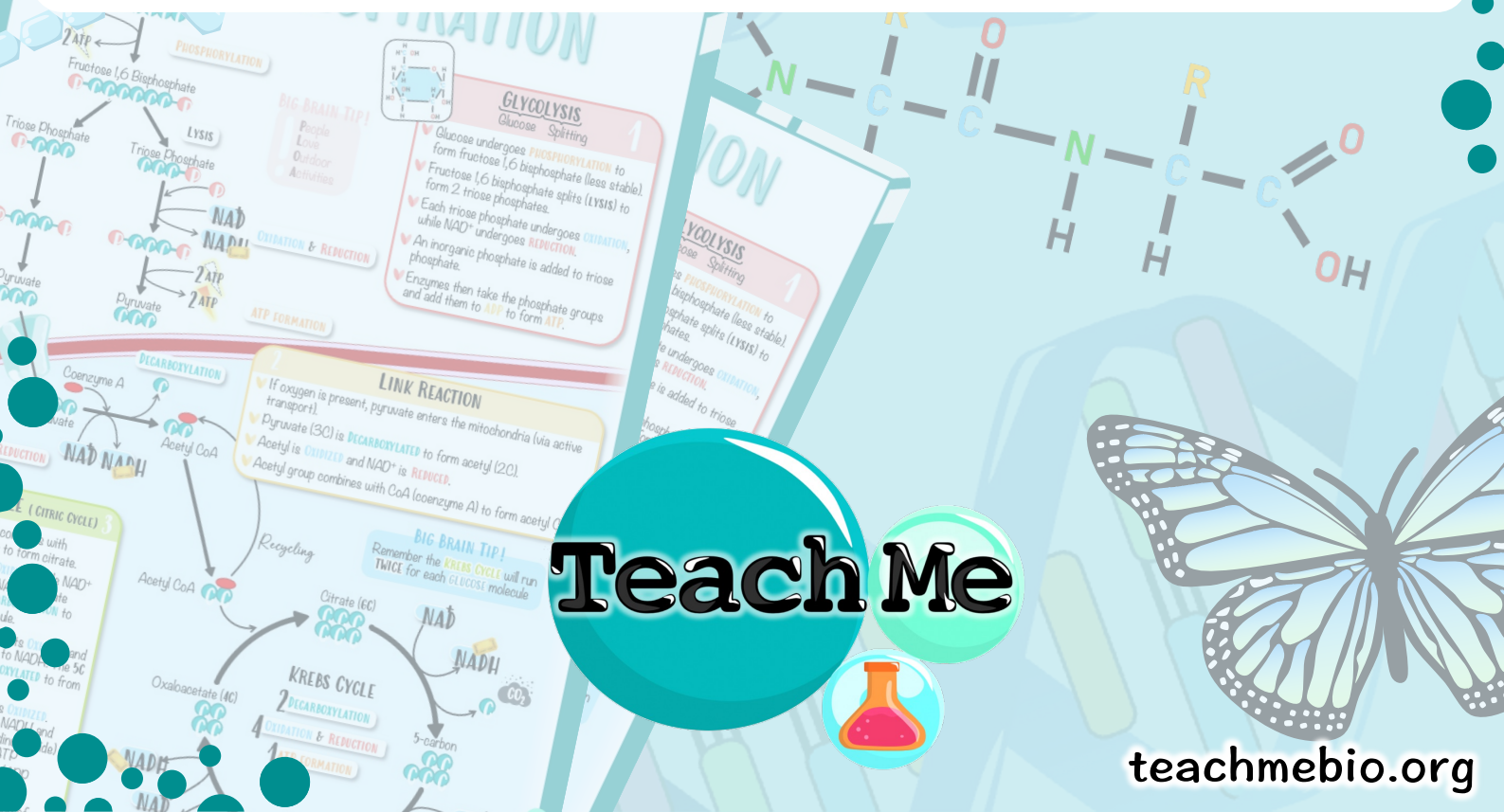


TeachMe

STUDY NOTES

CHAPTER 3 - ENZYMES

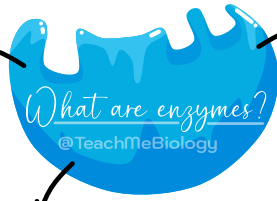
ENZYME ACTION



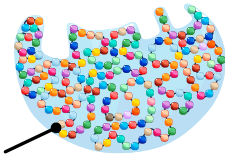
ENZYME ACTION

Enzymes are biological catalysts.

A substance that speeds up a reaction.
(complete definition on page 3)



Enzymes are proteins (globular).



Amino acids

"All enzymes are proteins, but not all proteins are enzymes."

Enzymes are like cellular tools, helping reactions to occur.

Enzymes catalyze chemical reactions by either **BREAKING** molecules apart or **JOINING** them together.



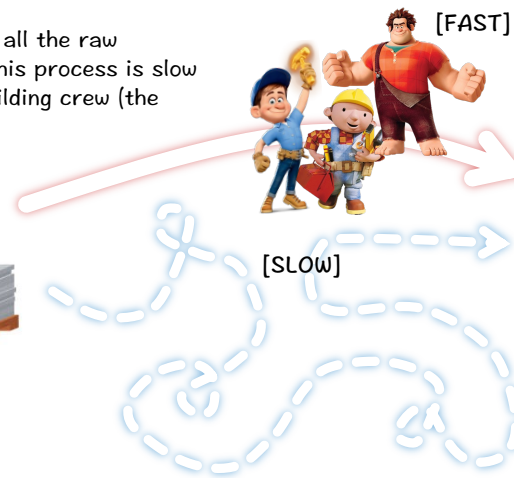
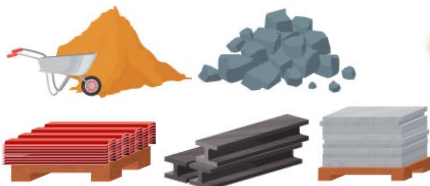
BIG BRAIN TIP!

Enzyme names almost always end in "ase"
Sugar names almost always end in "ose"



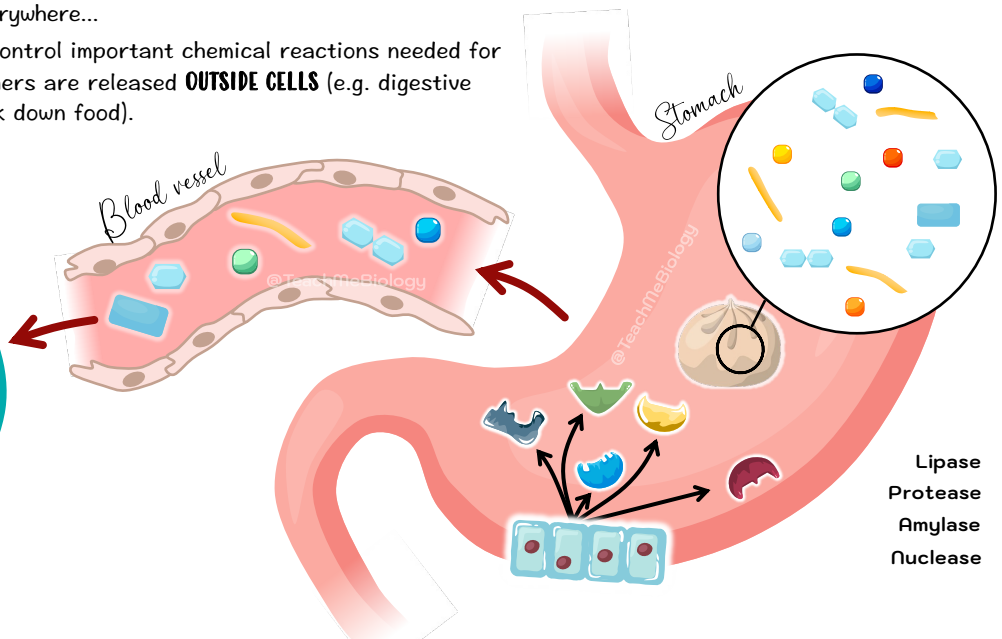
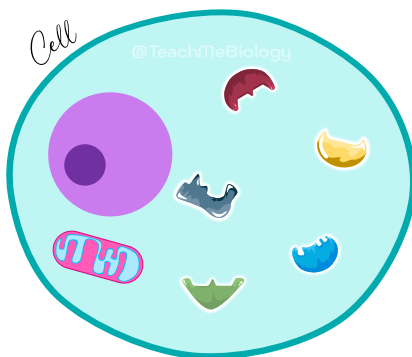
ANALOGY

You want to build a house; you already have all the raw materials. But the house won't build itself, this process is slow (if not impossible). So instead, you hire a building crew (the enzymes) to speed up the job.

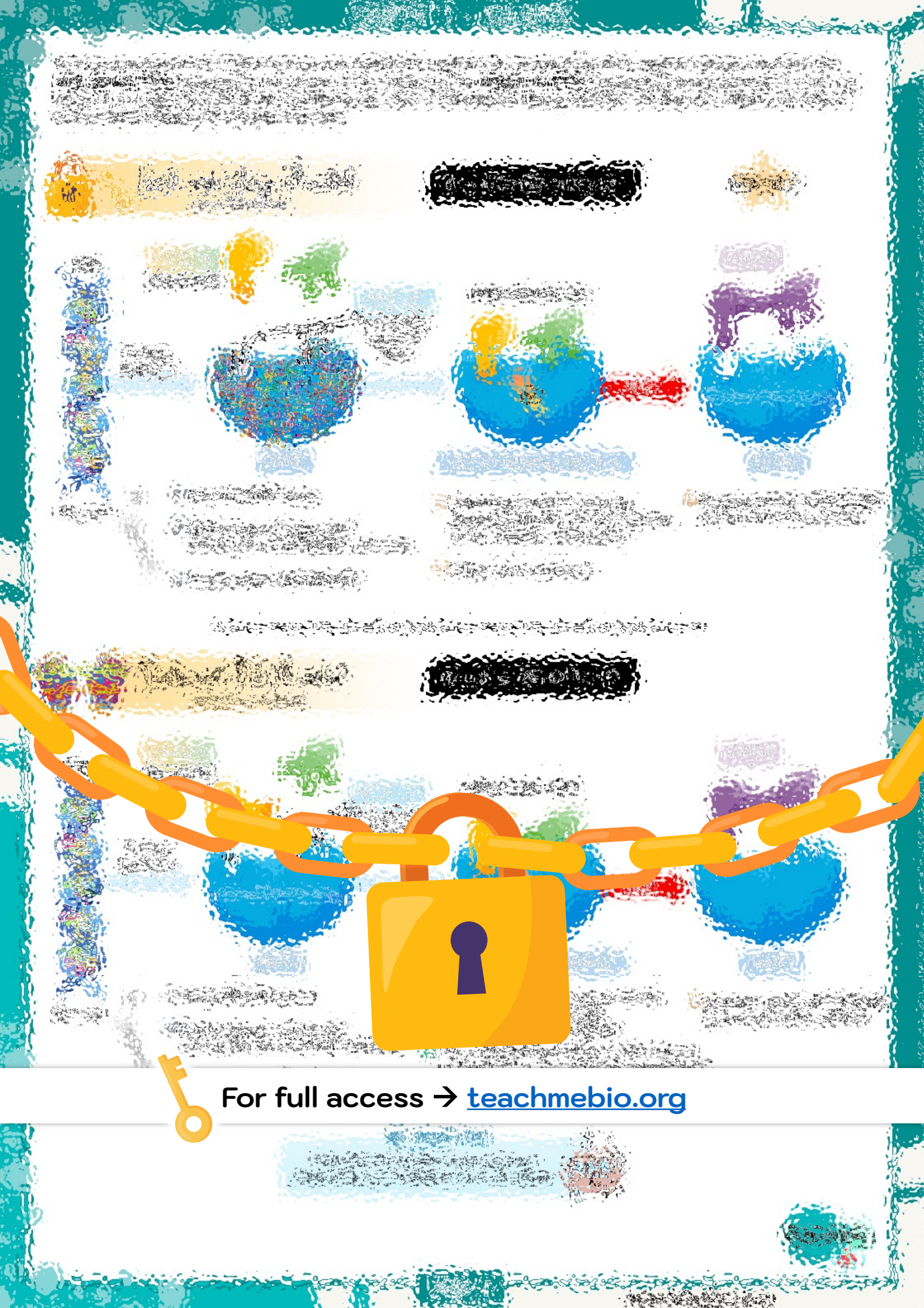


Where are enzymes found? Everywhere...

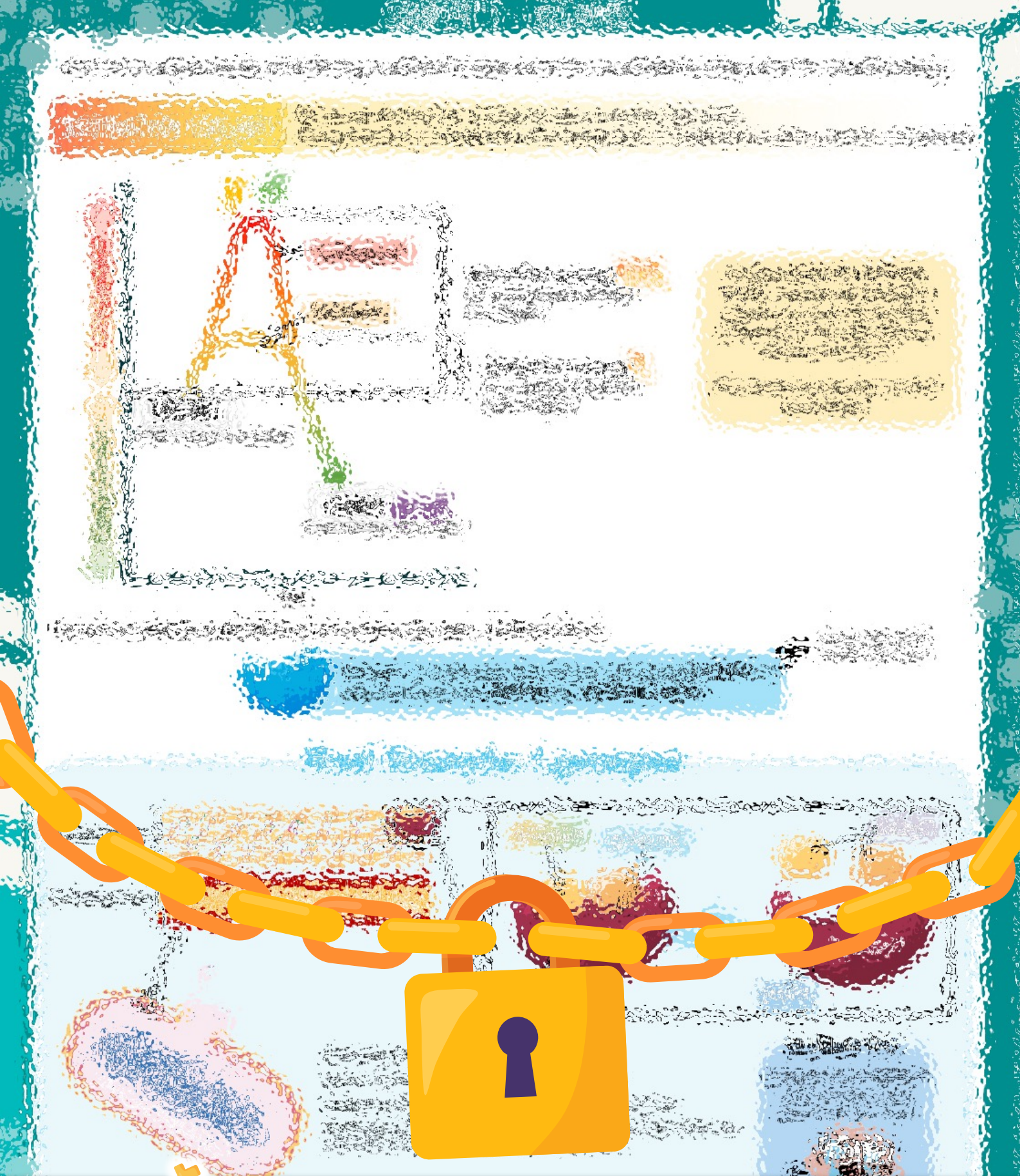
Many work **INSIDE CELLS**, where they control important chemical reactions needed for life (e.g. Glycolysis, Krebs cycle). Others are released **OUTSIDE CELLS** (e.g. digestive enzymes in the stomach to help break down food).



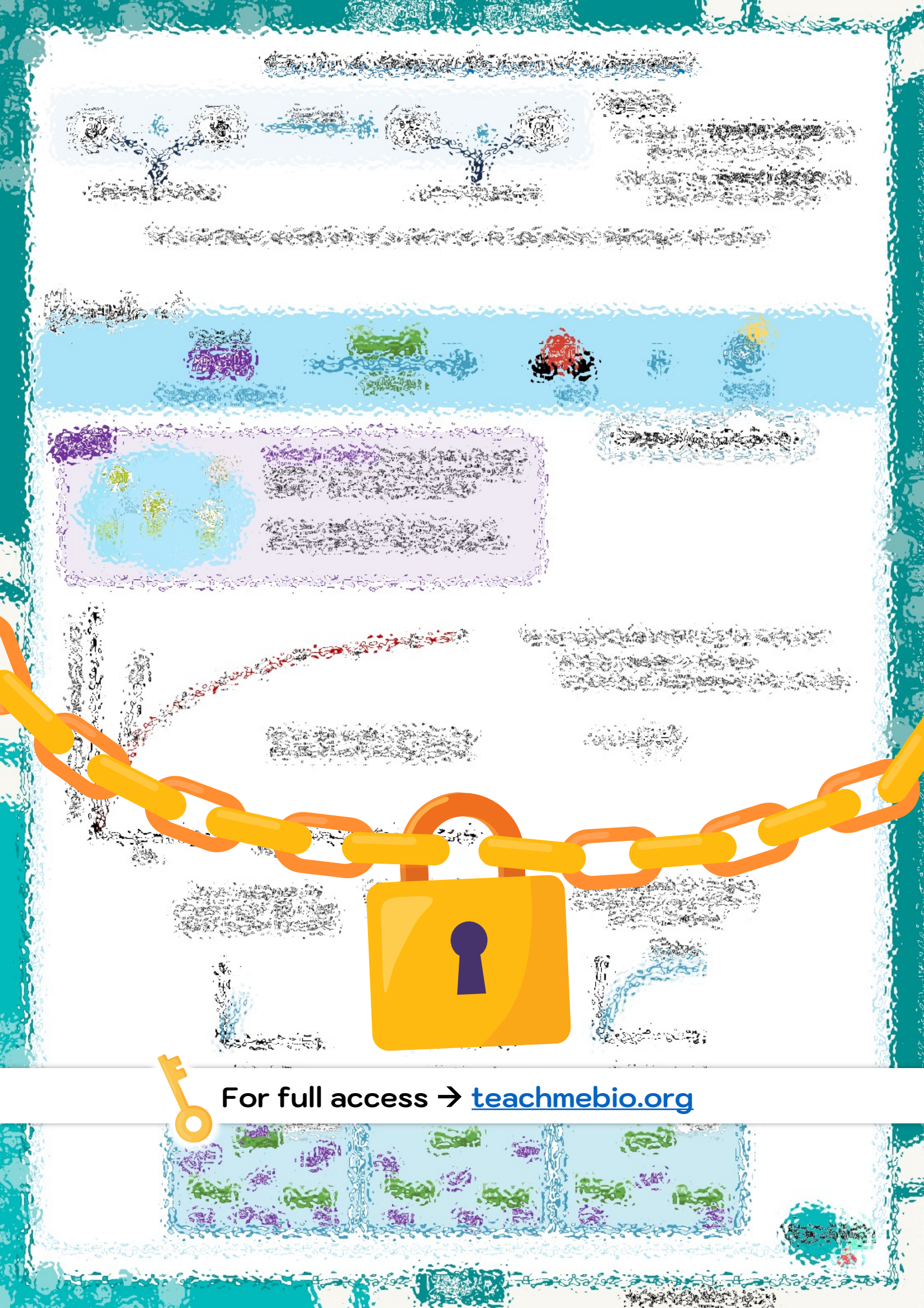
	Intracellular	Extracellular
Location	Occur within a cell	Occur outside a cell
Example	Glycolysis in cytoplasm Krebs cycle in mitochondria	Chemical digestion in stomach



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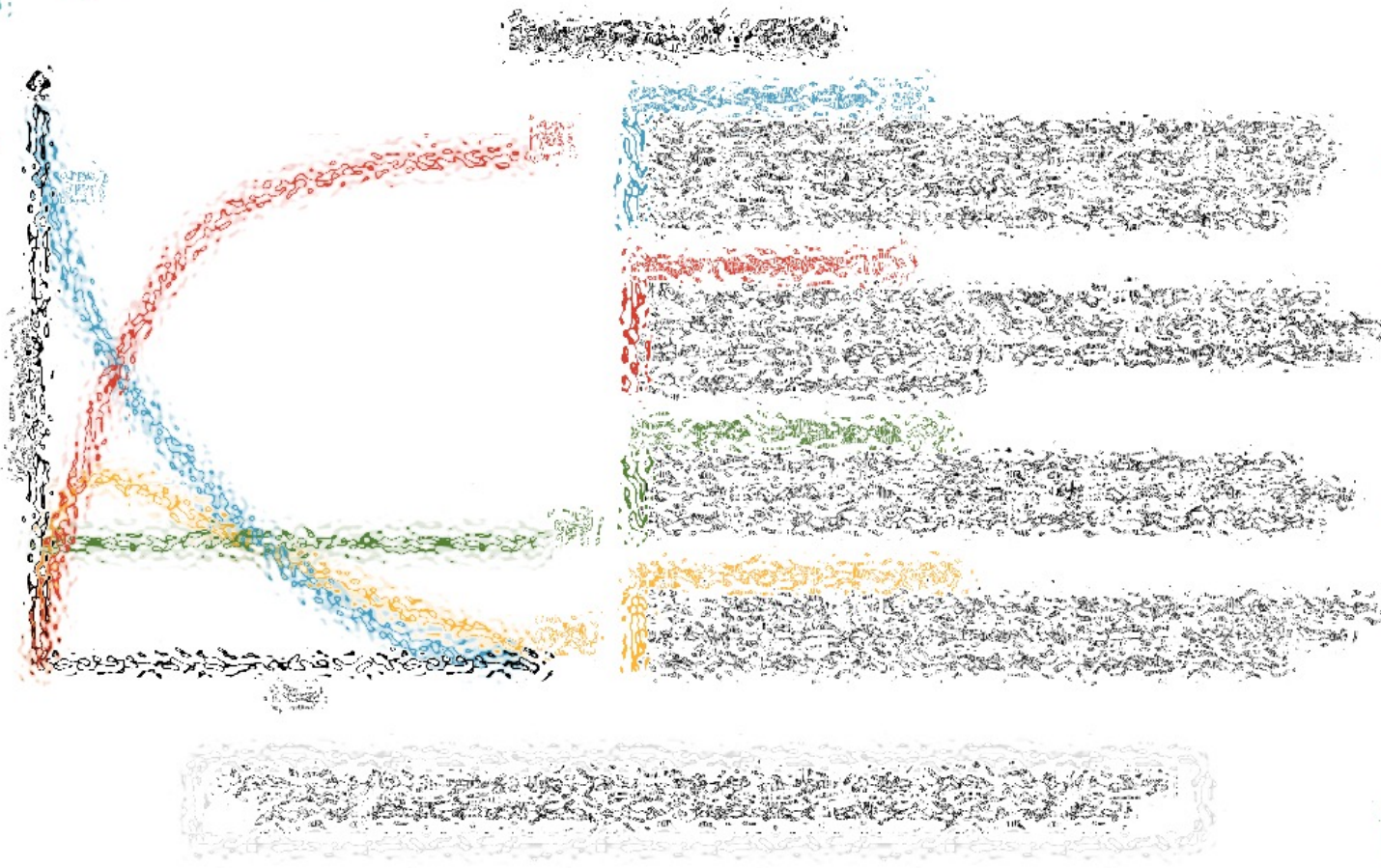
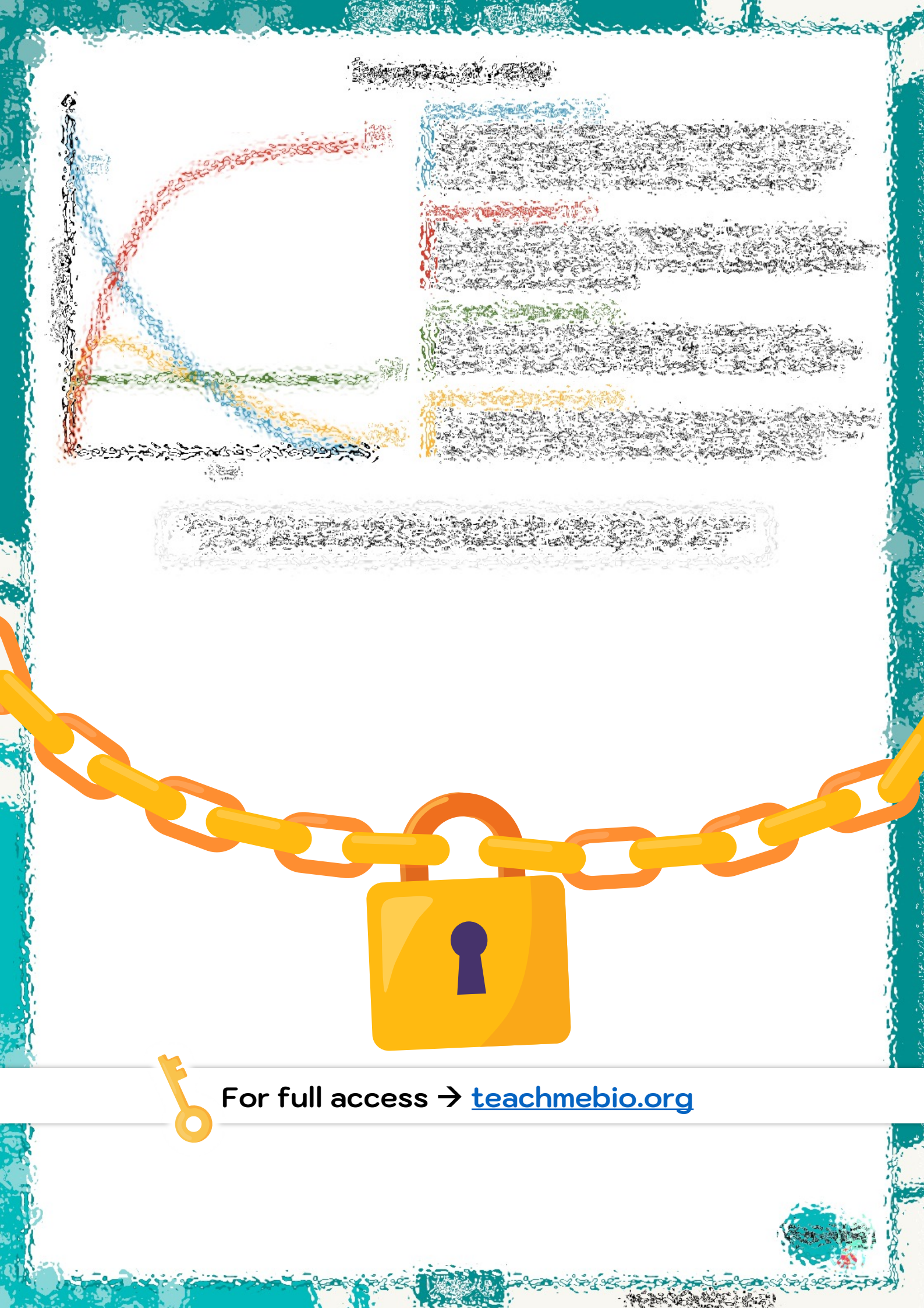
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A large, stylized orange padlock is centered at the bottom of the image. It is attached to a thick orange chain that extends horizontally across the frame. The padlock has a dark blue keyhole. The chain consists of several interlocking links, with the padlock being the largest and most prominent link. The background is a solid, bright yellow.

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