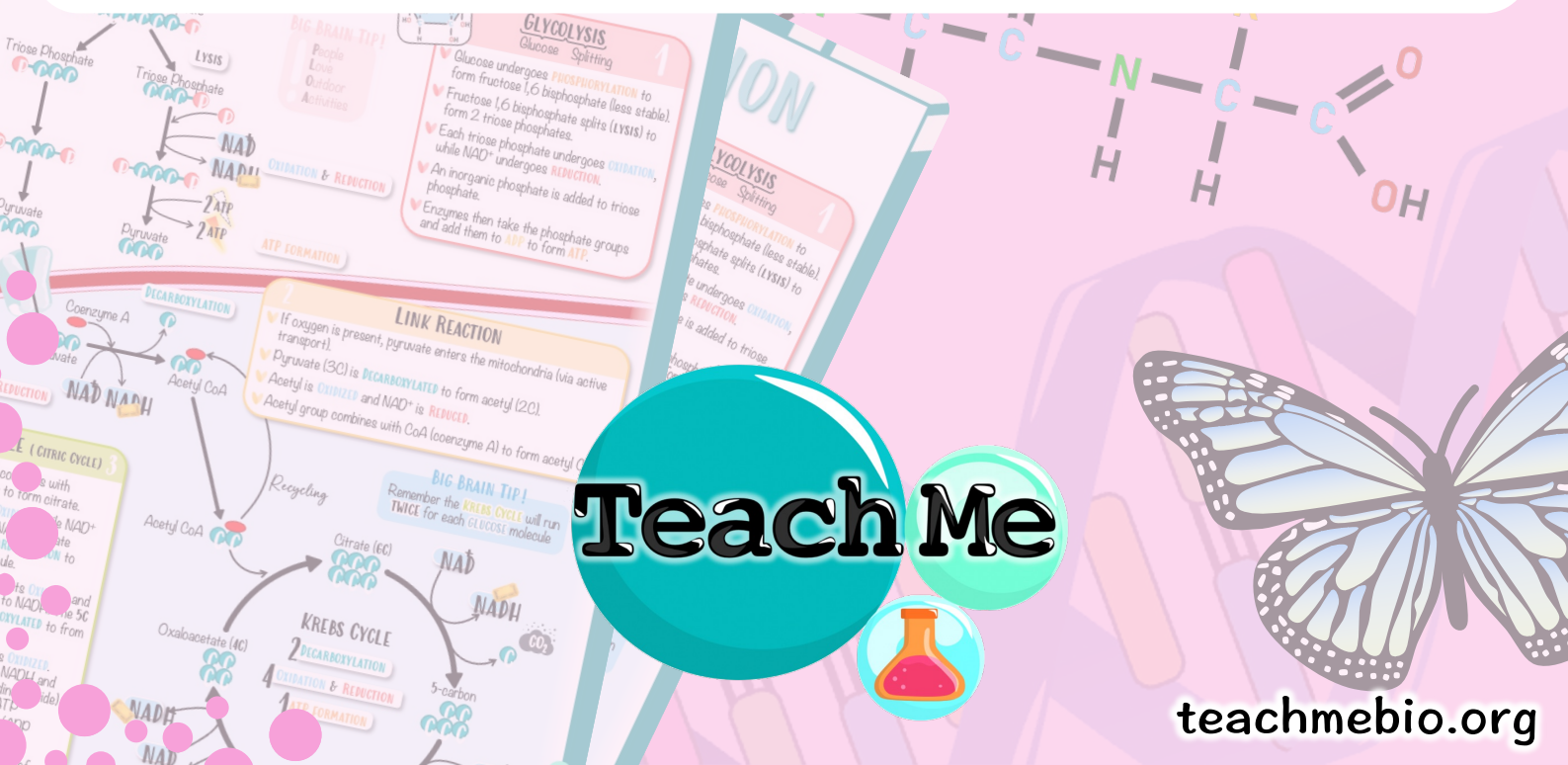


TeachMe

# STUDY NOTES

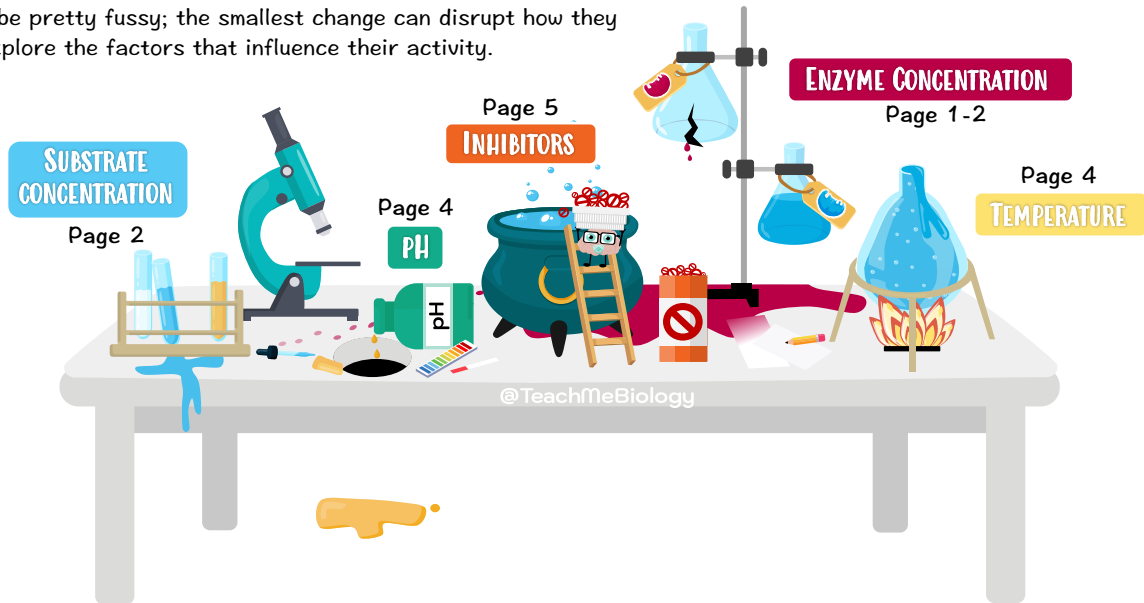
UNIT 3 – CELLULAR energetics

## 3.2 ENVIRONMENTAL IMPACTS on enzyme FUNCTION



# ENVIRONMENTAL IMPACTS ON ENZYME FUNCTION

Enzymes can be pretty fussy; the smallest change can disrupt how they work. Let's explore the factors that influence their activity.

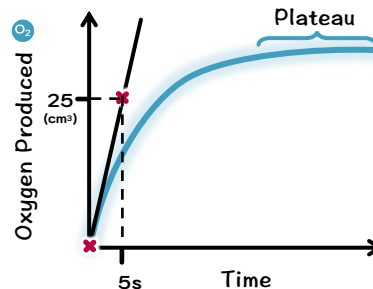
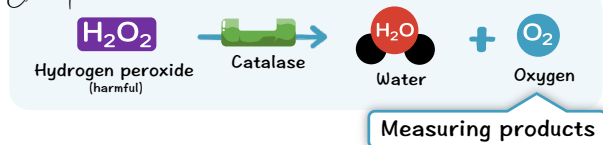


## ENZYME CONCENTRATION

effect on enzyme activity

To understand how changing the enzyme concentration affects the rate of a reaction, we first look at an example reaction:

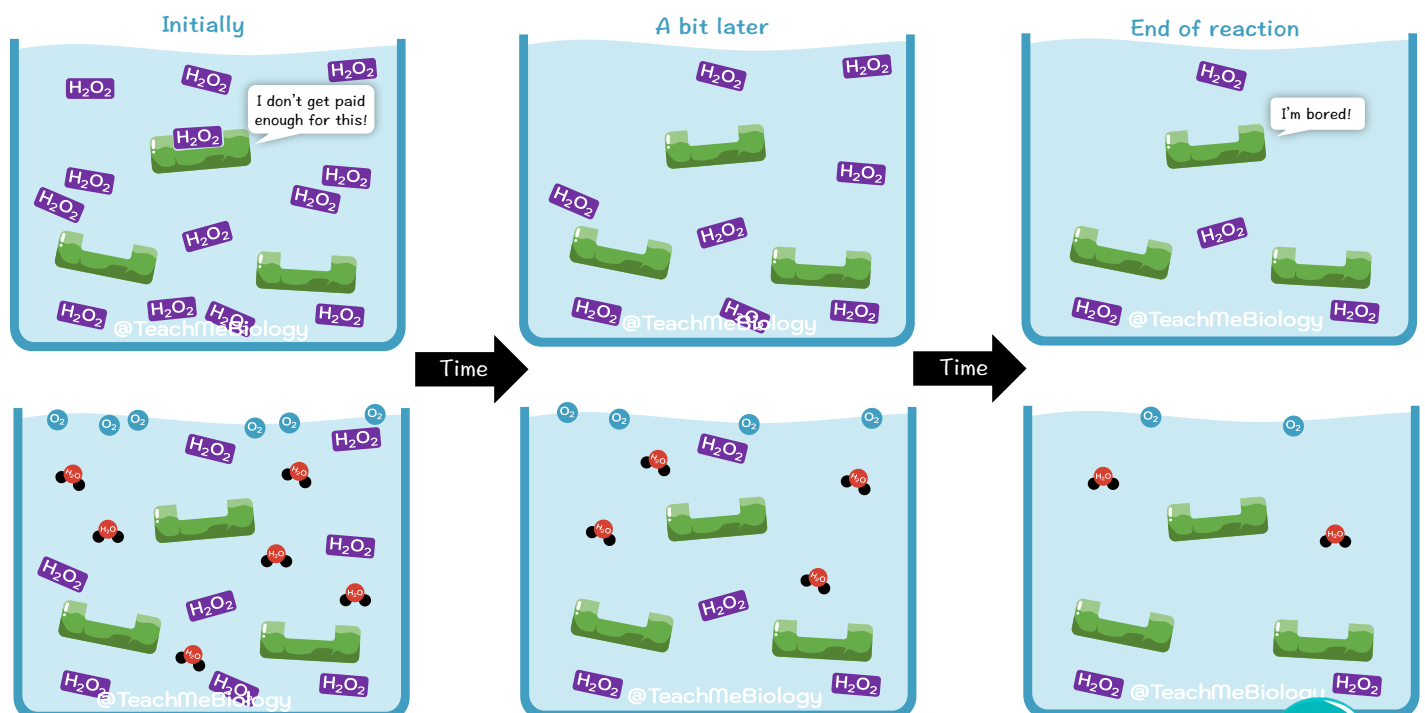
Example



Initial rate (with 3 enzymes)

$$\text{Initial rate} = \frac{y_2 - y_1}{x_2 - x_1}$$

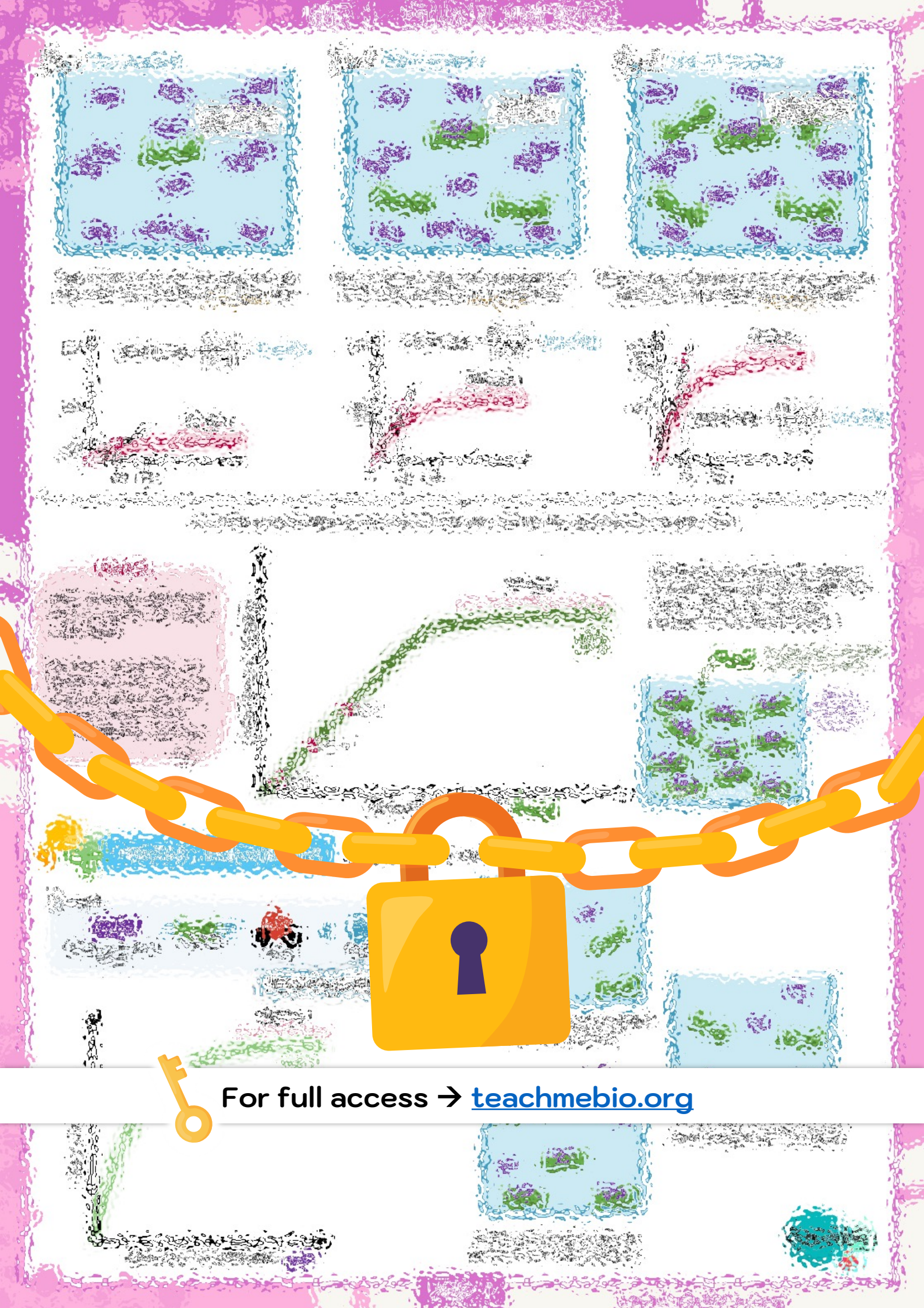
$$\text{Initial rate} = \frac{25 - 0}{5 - 0} = 5 \text{ cm}^3/\text{s}$$



By conducting this experiment, we find the initial rate of the reaction. We can then repeat the same experiment, keeping all the variables the same, except this time we increase the concentration of enzymes.

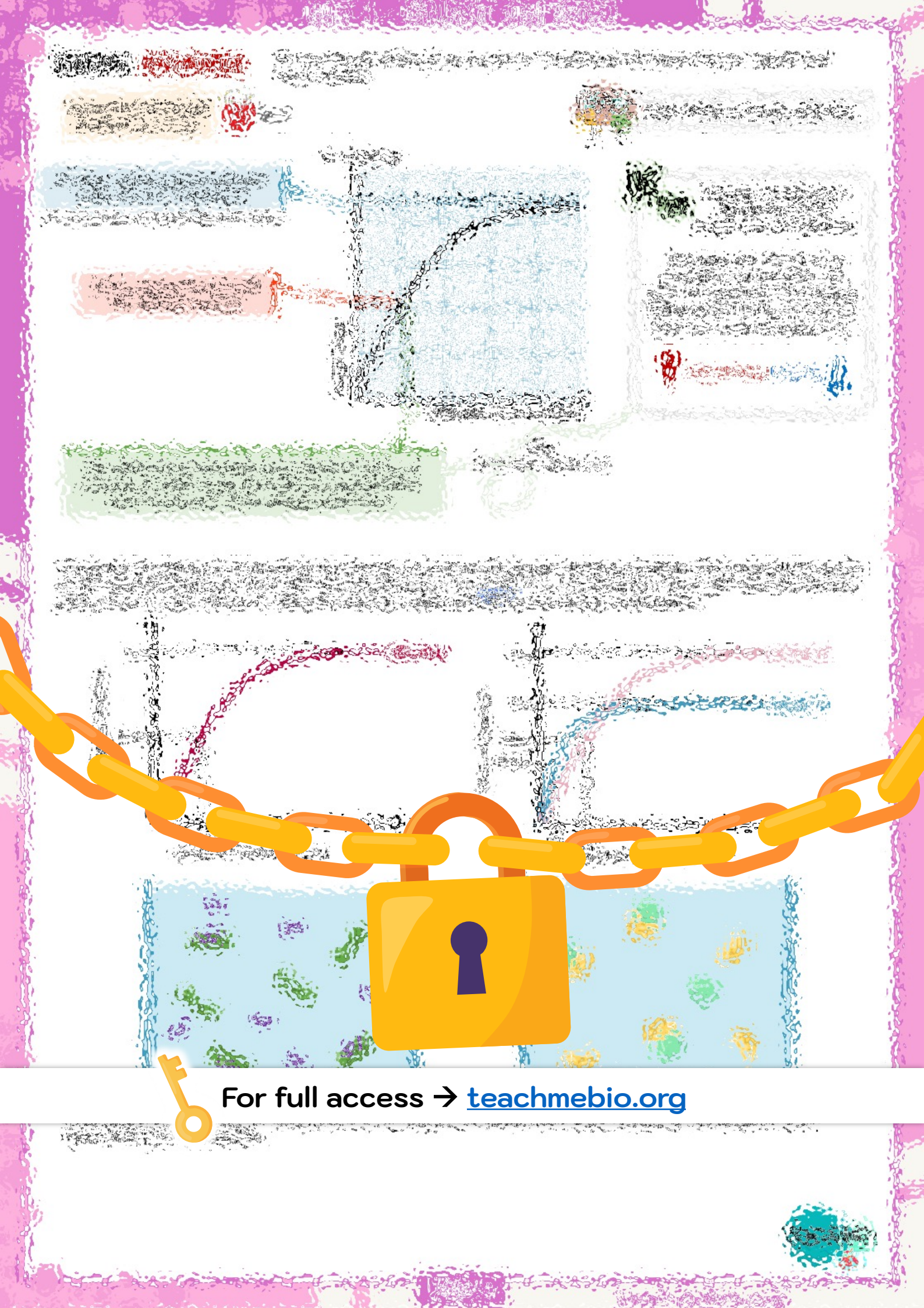






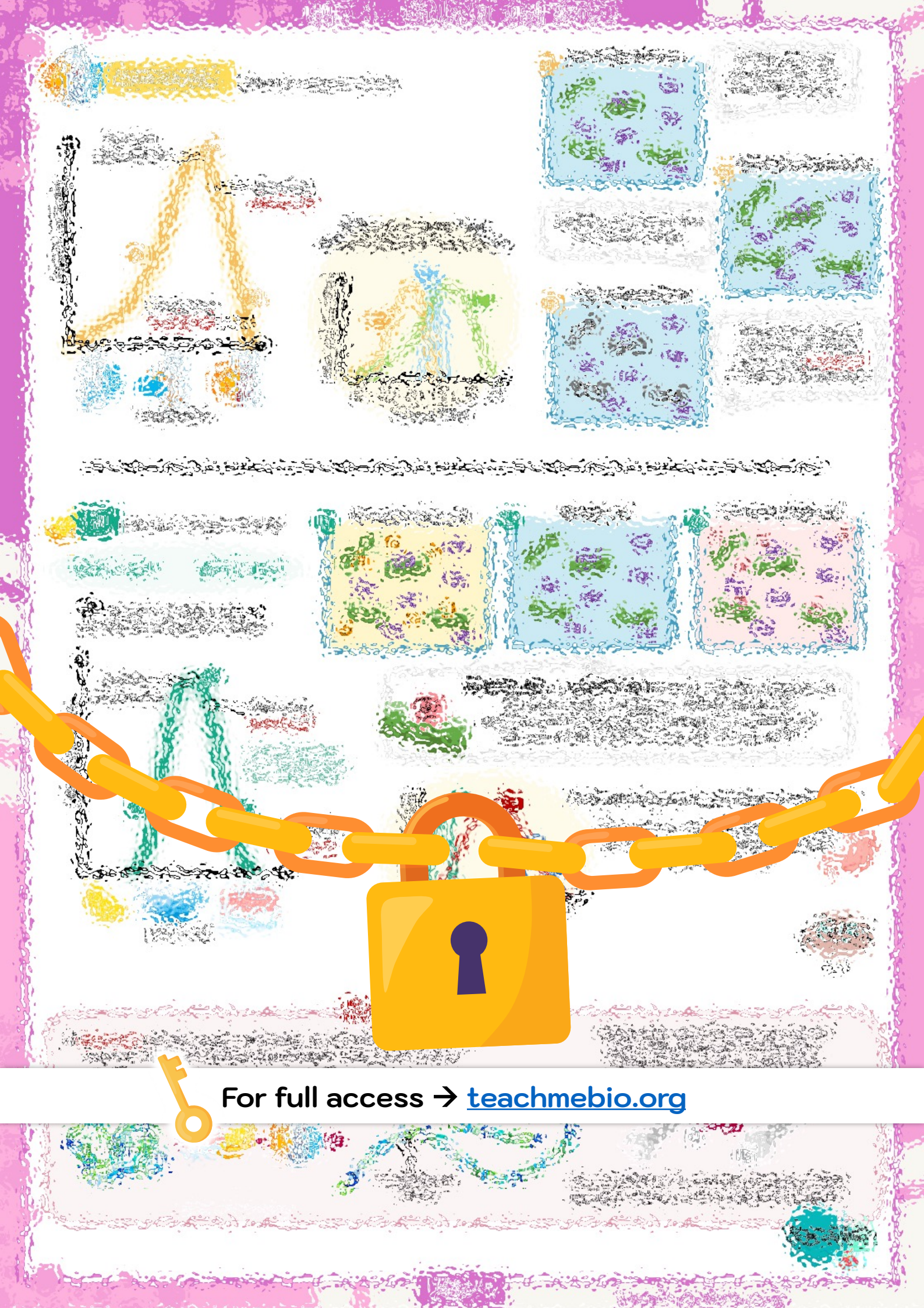
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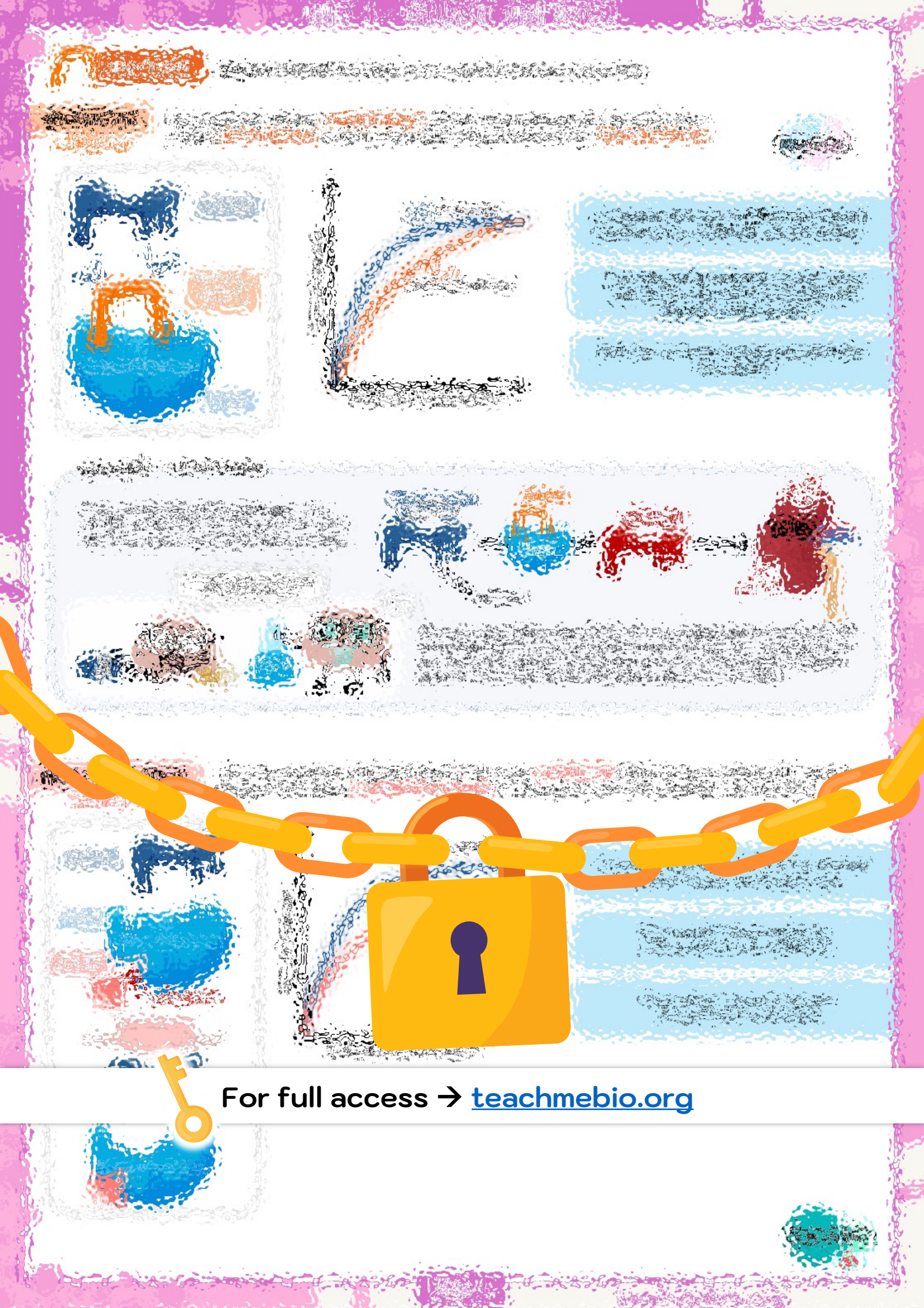
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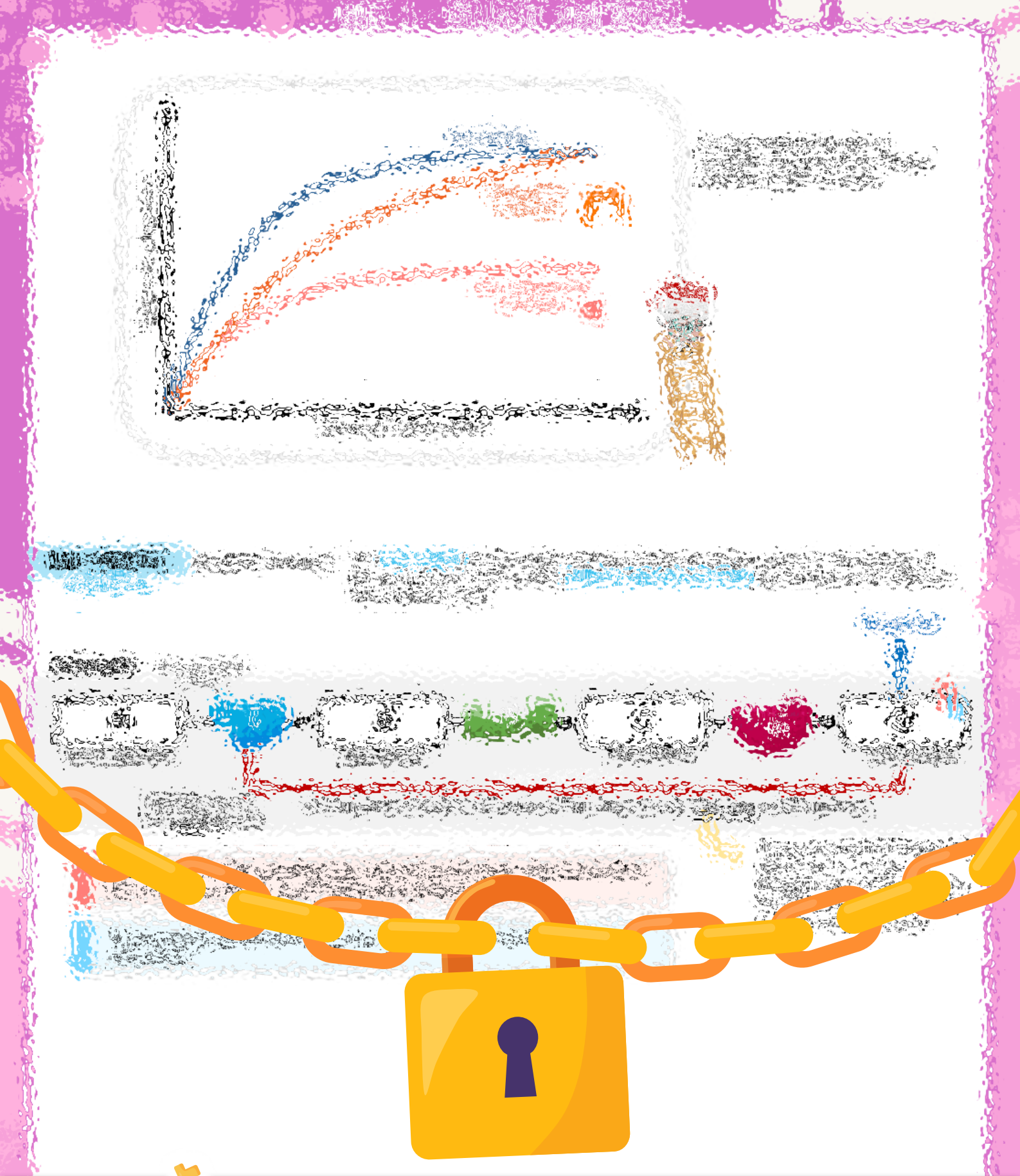
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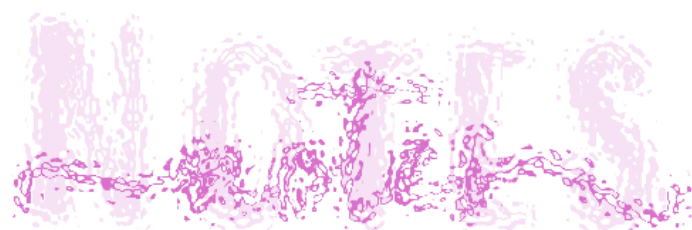


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A graphic of a yellow padlock and chain. The padlock is yellow with a black keyhole. It is attached to a yellow chain that extends across the top of the page. The background is a light blue gradient with faint, repeating text patterns.

