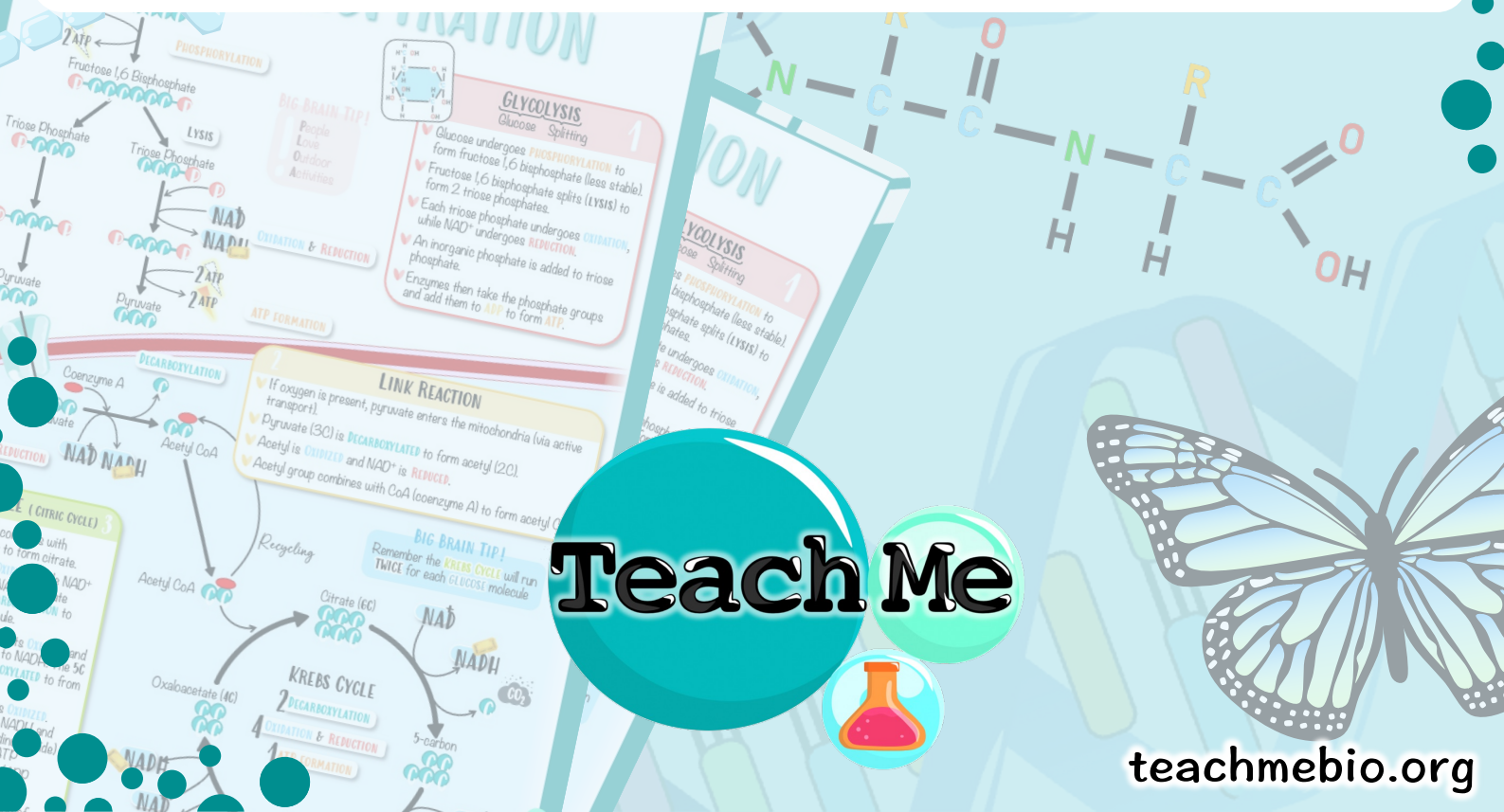


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# STUDY NOTES

## CHAPTER 10 – INFECTIOUS DISEASE ANTIBIOTICS



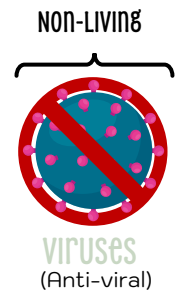
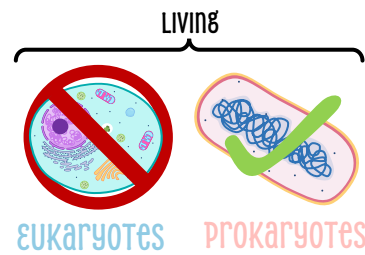
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# ANTIBIOTICS

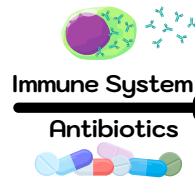
A substance derived from a living organism that is capable of **KILLING** or **INHIBITING THE GROWTH** of **BACTERIA**.  
 [Bactericidal] [Bacteriostatic]

## WHAT DO ANTIBIOTICS DO?

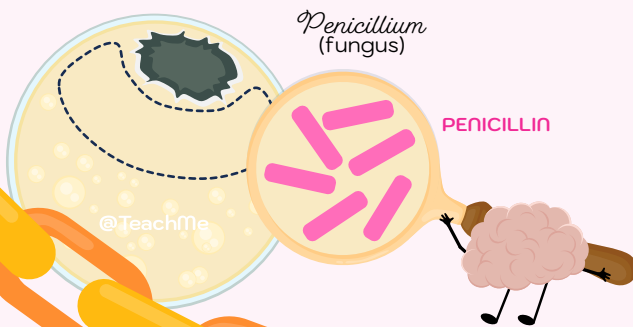
- ✔ Treat **bacterial** infections
- ✔ Do **NOT** work against **viruses** (see page 2)
- ✔ Work alongside the **immune system** (chapter 11)
- ✔ Can kill bacteria (bactericidal) or stop them reproducing (bacteriostatic). Mechanism on page 2.



Brain develops a **bacterial infection**, causing **symptoms** of illness.



His **immune system** immediately begins fighting the invading bacteria. **Antibiotics** are then taken to help kill the bacteria or prevent them from multiplying, reducing the size of the bacterial population. Together, the immune system and antibiotics eliminate the infection, allowing the brain to recover.



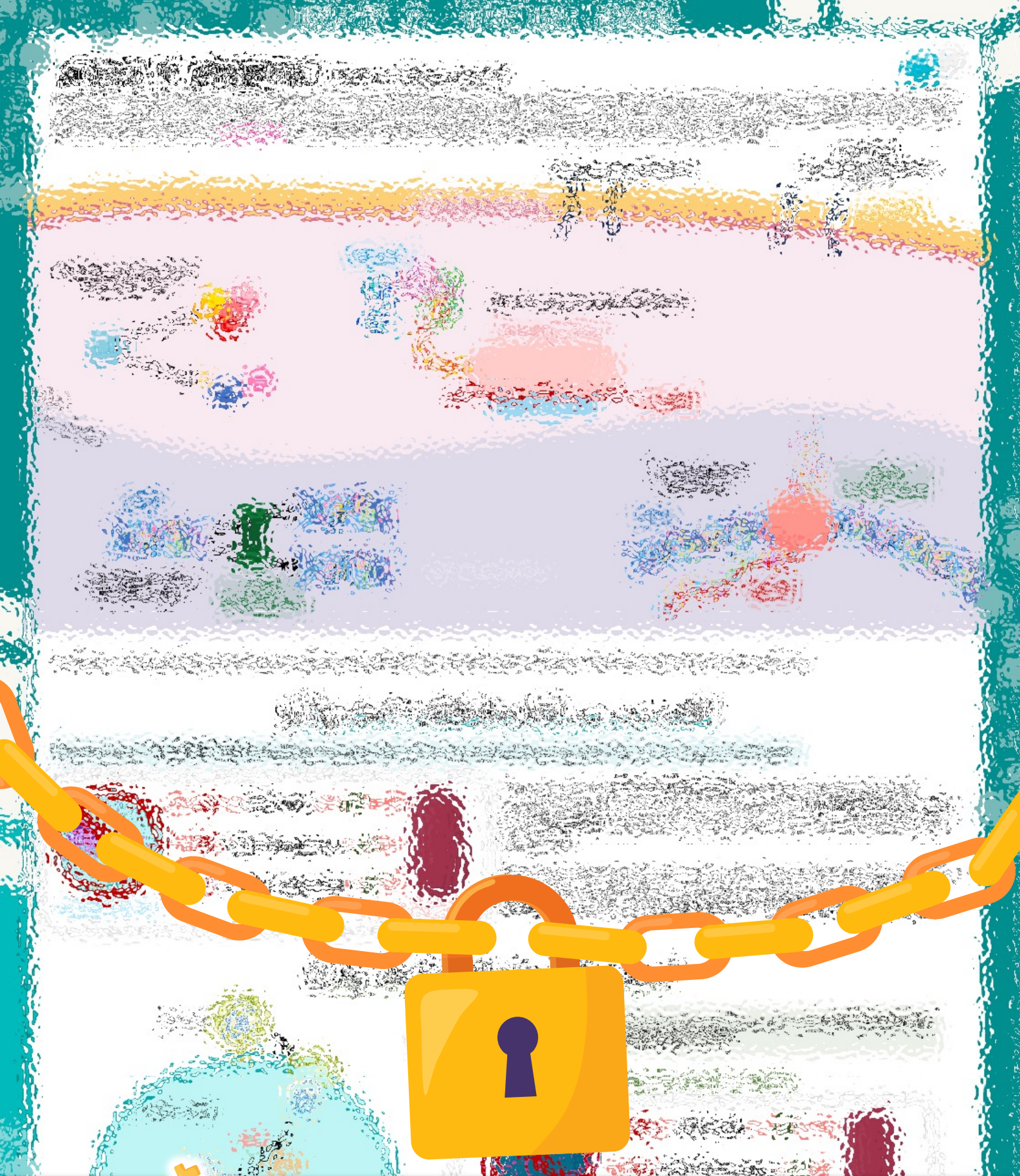
## Penicillin discovery

In 1928, Alexander Fleming noticed that a **MOULD** (Penicillium) had contaminated one of his bacterial culture plates.

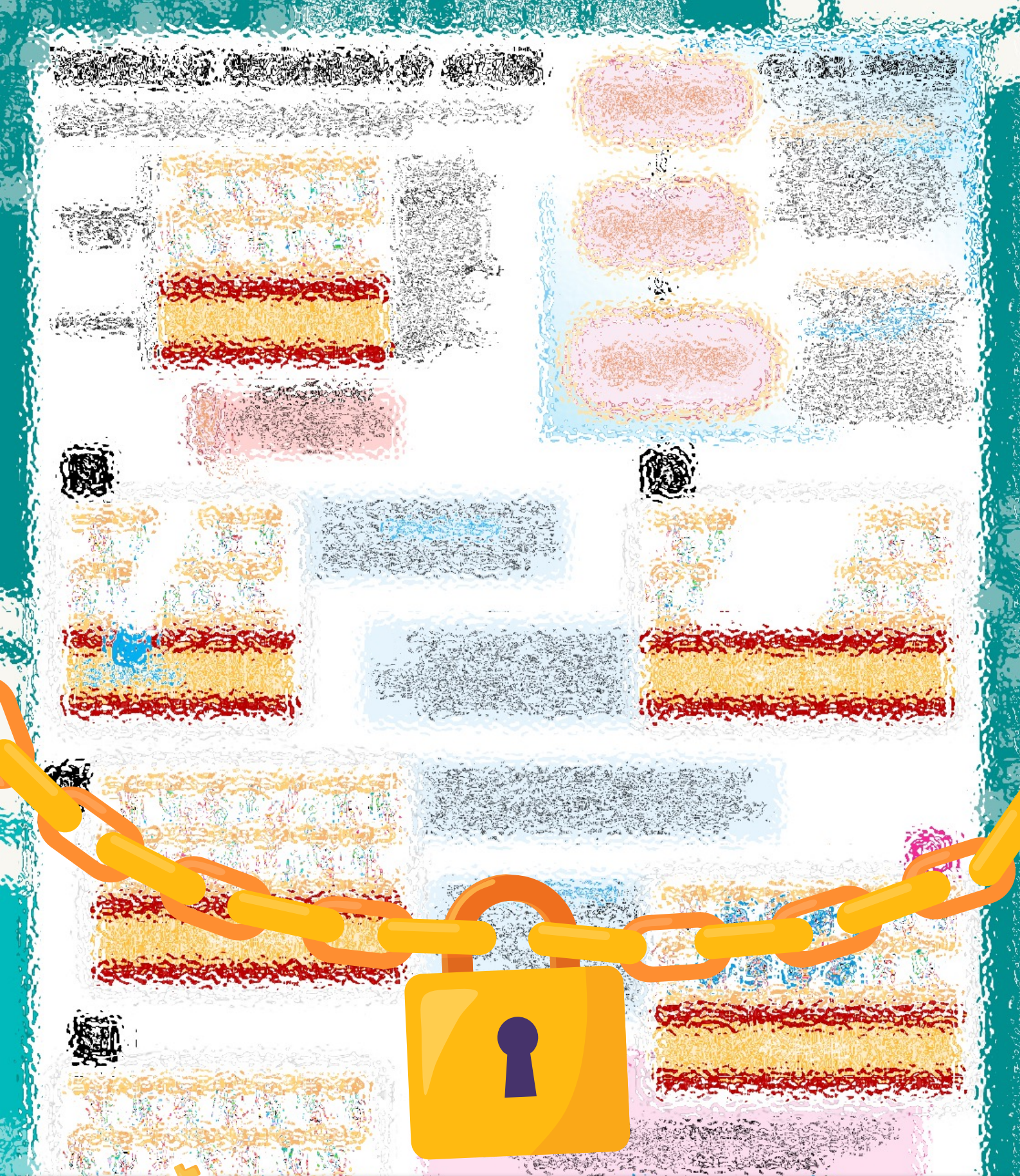
Around the mould, there was a **clear zone** where bacteria had not grown.

He concluded that the fungus released a substance that killed or inhibited bacteria. This substance became known as **PENICILLIN**, the world's first antibiotic.

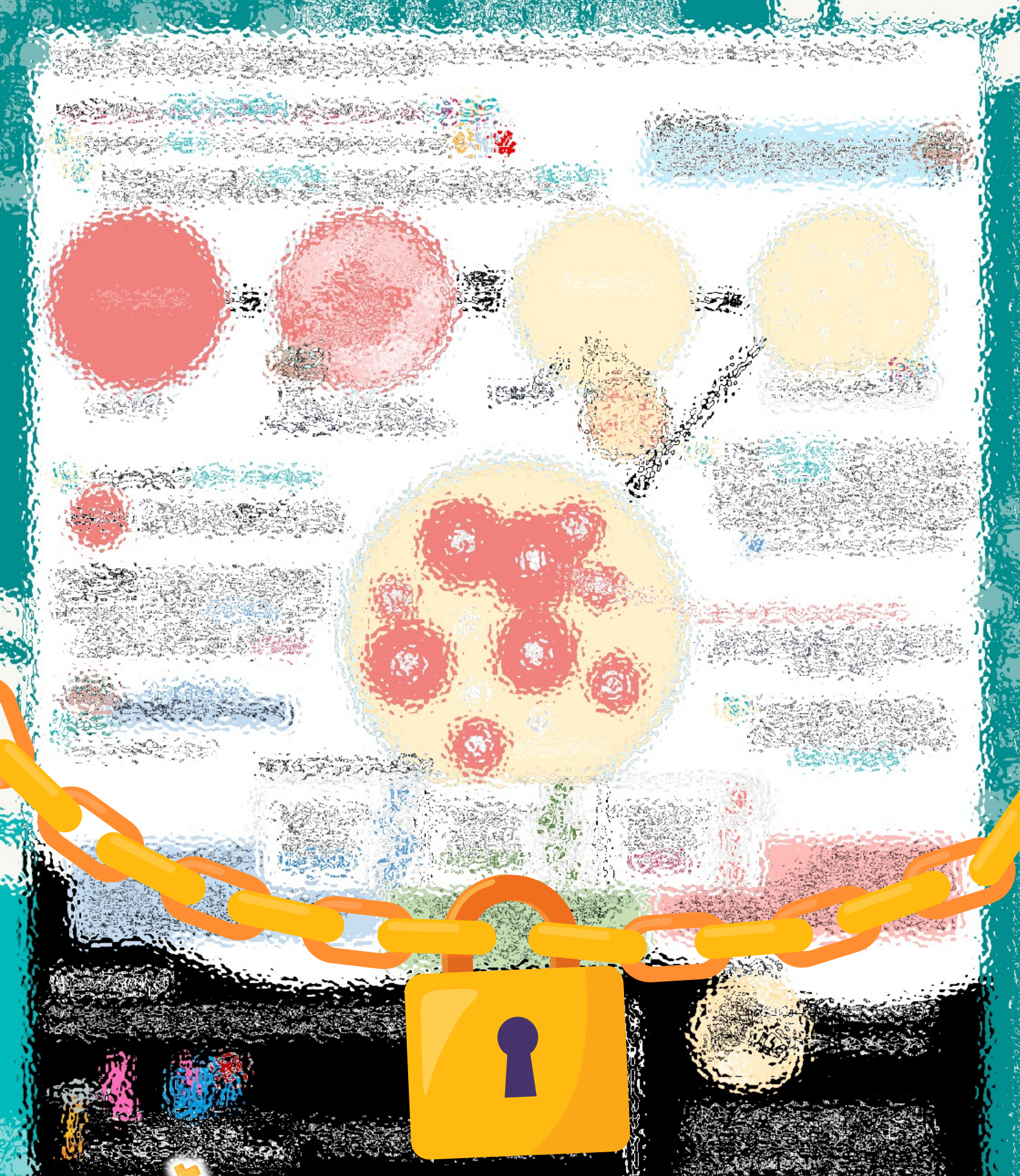
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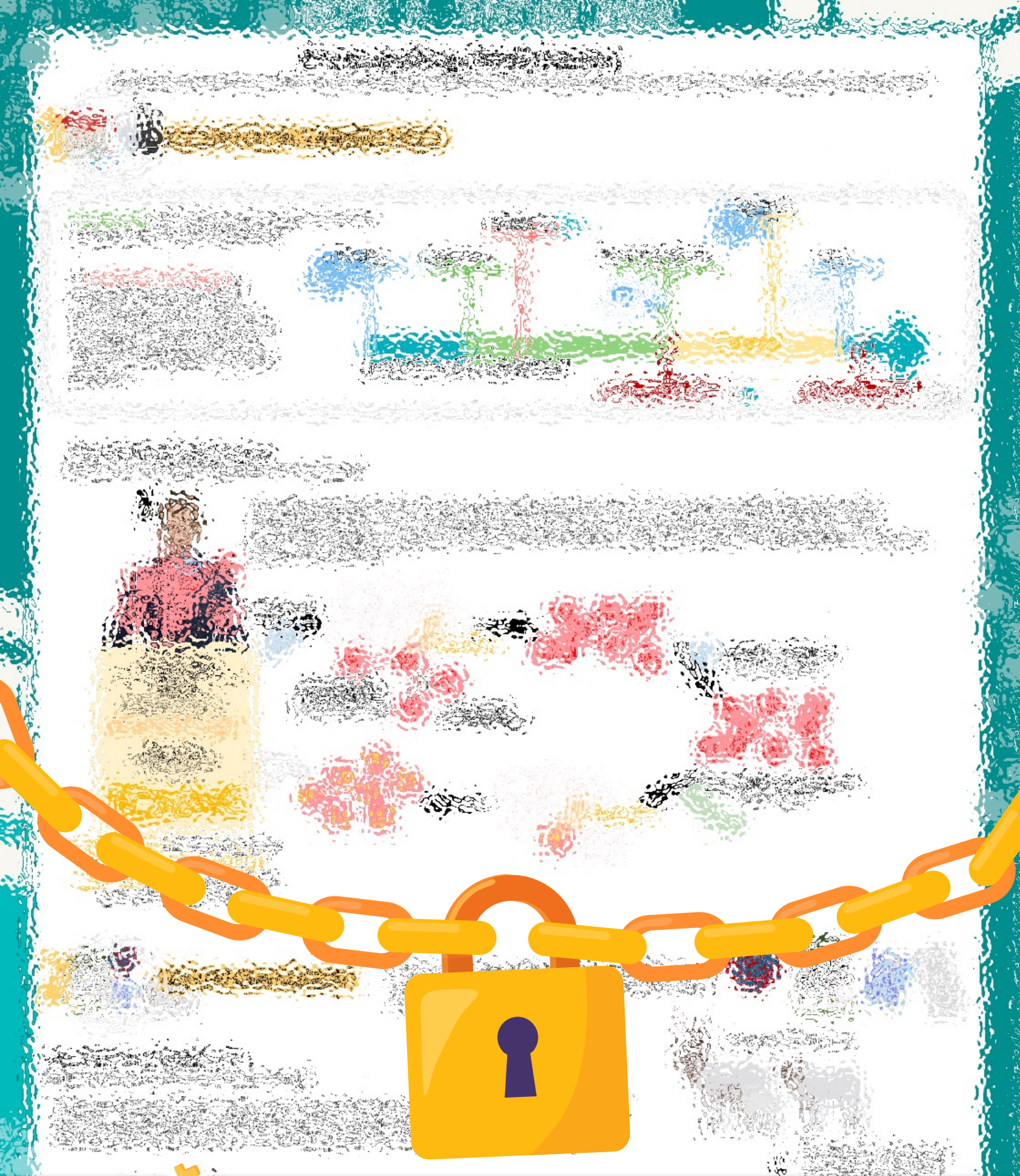
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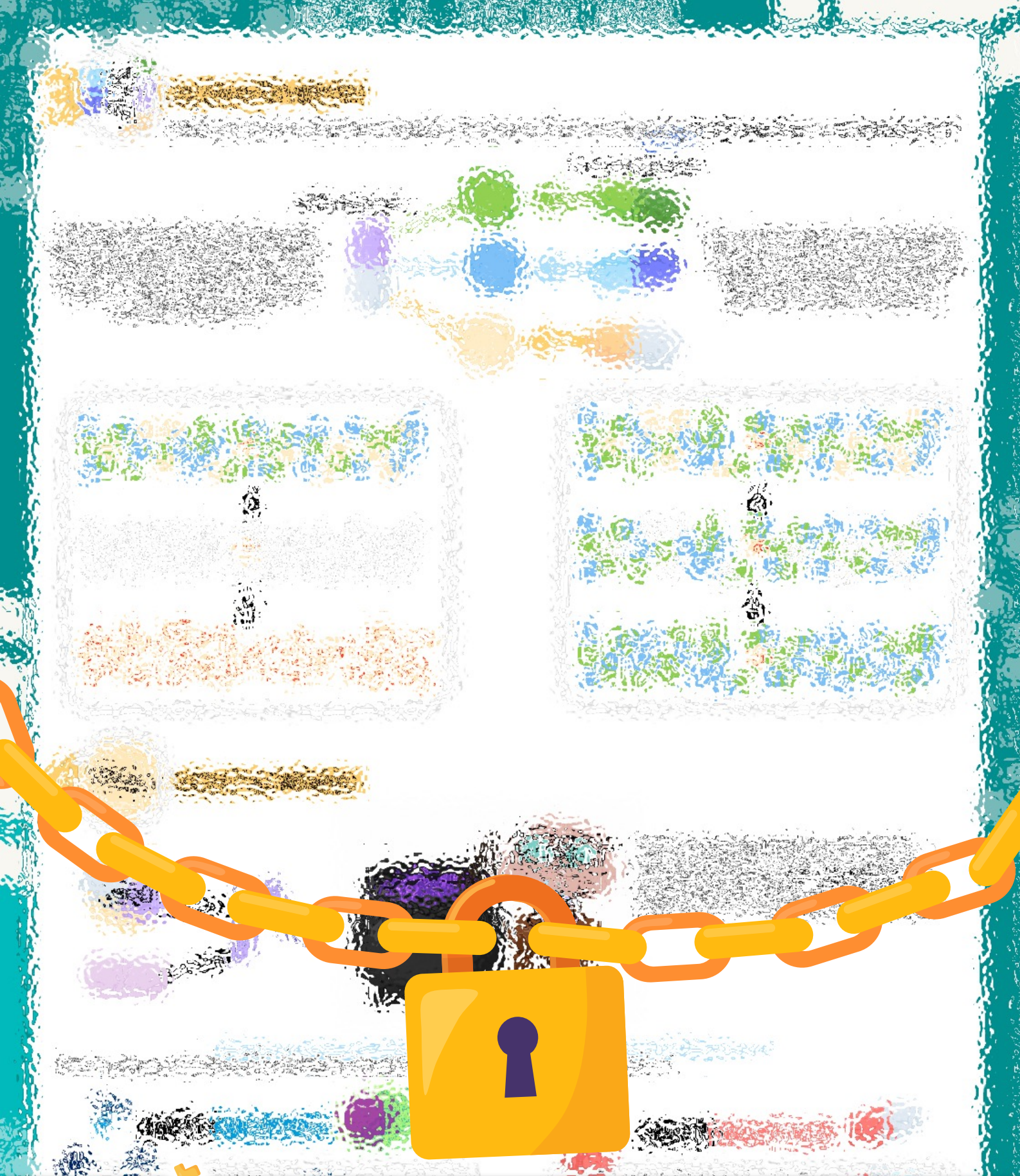
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# 11.11.11



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