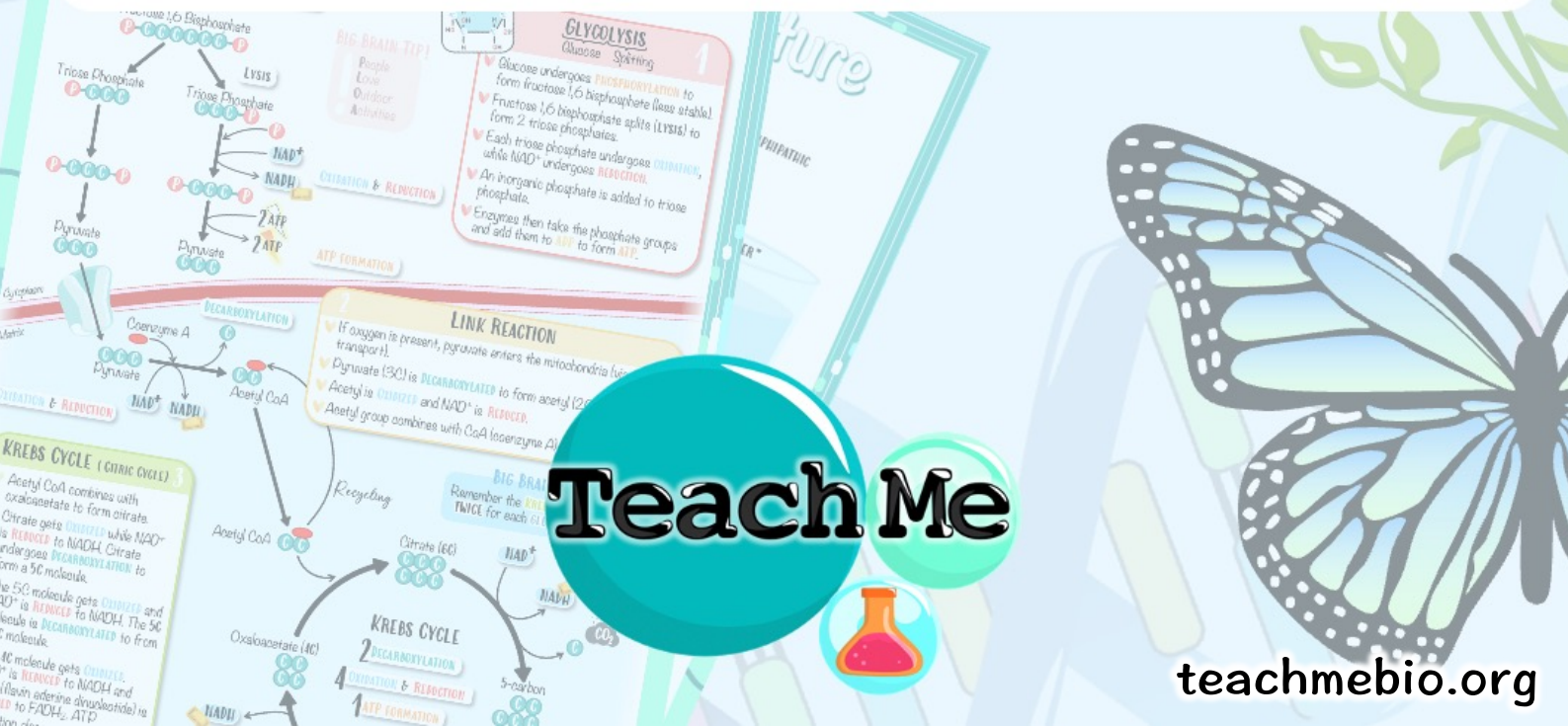


TeachMe

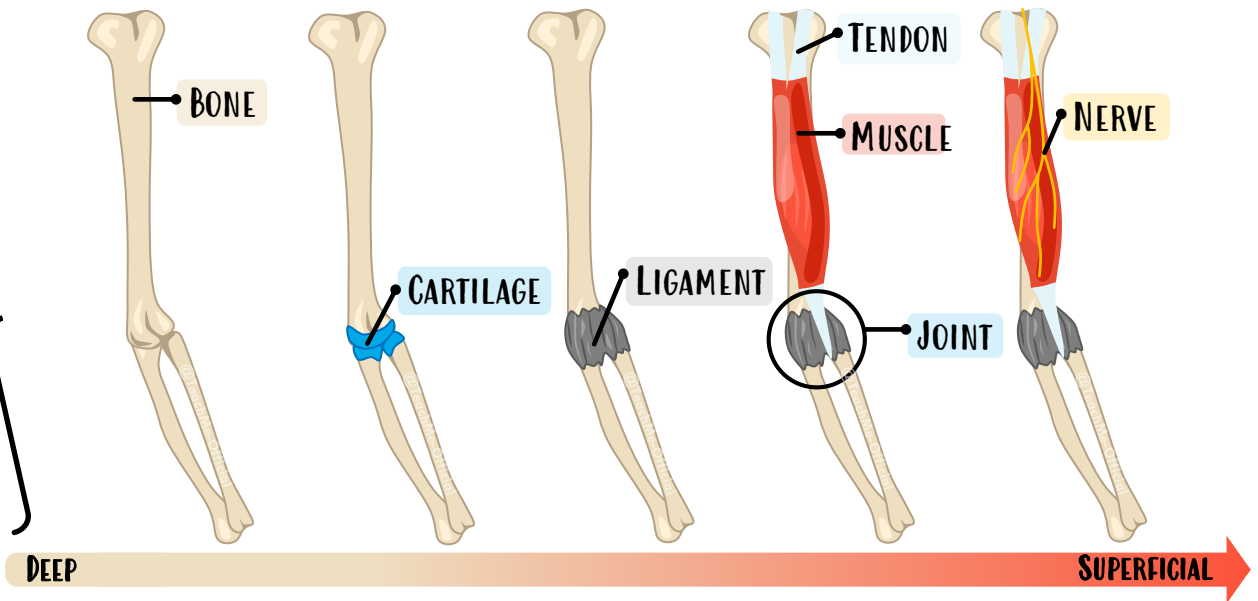
STUDY NOTES

B3.3 MUSCLES & MOTILITY (HL)



Muscles & Motility (HL)

Overview of the **MUSCULOSKELETAL SYSTEM** – Bones, muscles & joints



BONE

- Provide a strong framework
- Protect vital organs (rib cage protects the lungs and heart)
- Blood cell synthesis (bone marrow)
- Storage of minerals (like calcium)
- Act as levers (for movement)

CARTILAGE

- A smooth protective surface on bones that reduces friction (makes it slippery) to allow smooth movement and absorbs pressure (like a cushion for example in the knee joint)

MUSCLE

- Tissues that provide force by contracting and relaxing to enable movement.

NERVE

- Contains neurons (cells) which stimulate the muscle contraction.

LIGAMENT

- Tough connective tissue that attaches bones to one another (bone to bone)

TENDON

- Connective tissue that attaches each muscle to its appropriate bone

JOINT

- A place where two or more bones meet. A joint can involve bones, muscle, cartilage, ligament, tendons and nerves.

Why THE NEED FOR LOCOMOTION? (movement)



REASON

Escape Danger

Foraging for food

Search for mate

Migration

Dispersal

ANIMAL

Flying fish

Honeybees

Loggerhead sea turtle

Arctic tern

Hoary bat



DESCRIPTION

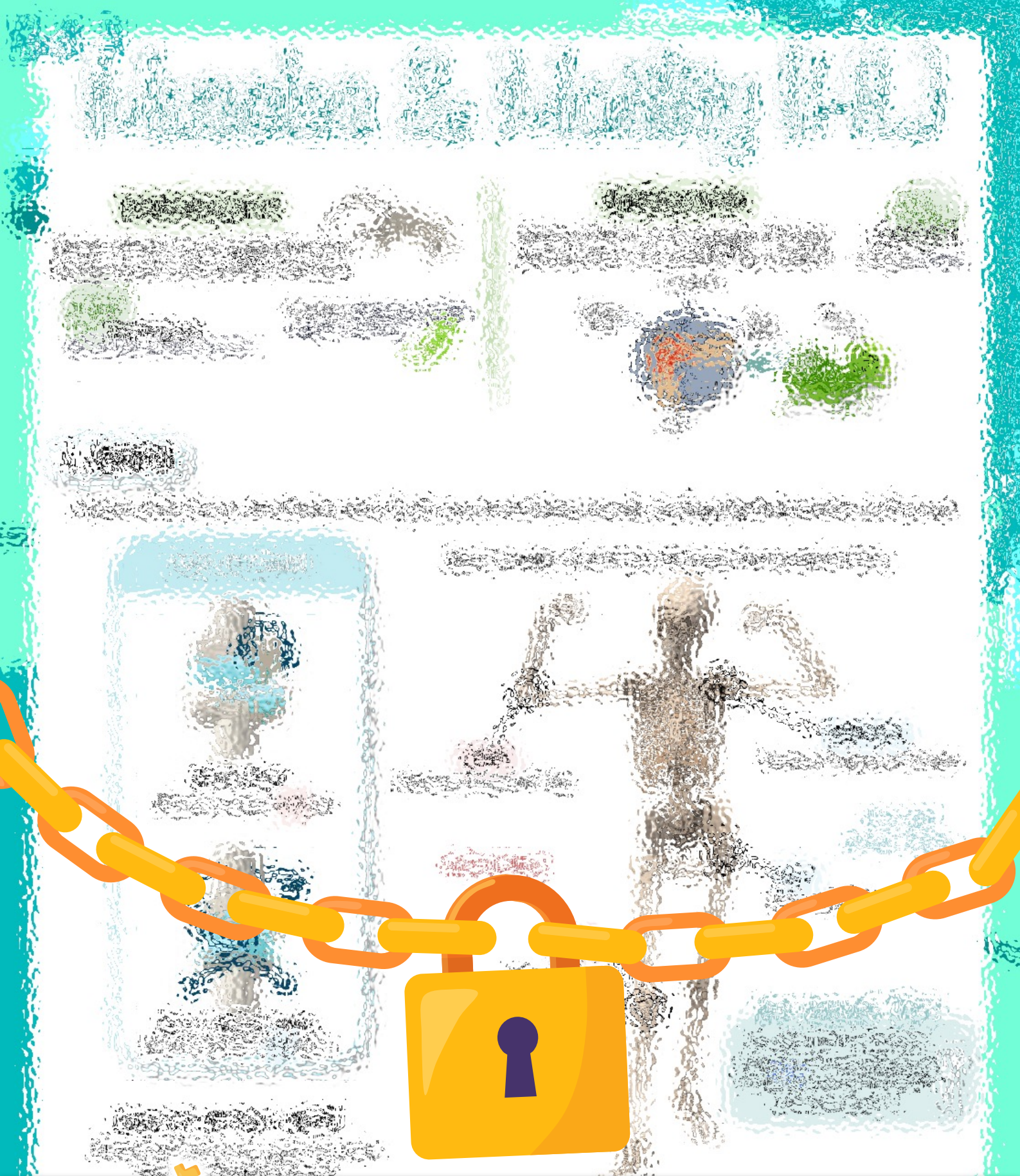
Escape predators by means of swimming fast and using their very long fins to glide over water.

Flying from flower to flower to collect nectar and pollen.

Both males and females swim back to the beach where they were hatched to mate and lay eggs.

Move from their arctic breeding grounds to the Antarctic region and back each year, to take advantage of available food.

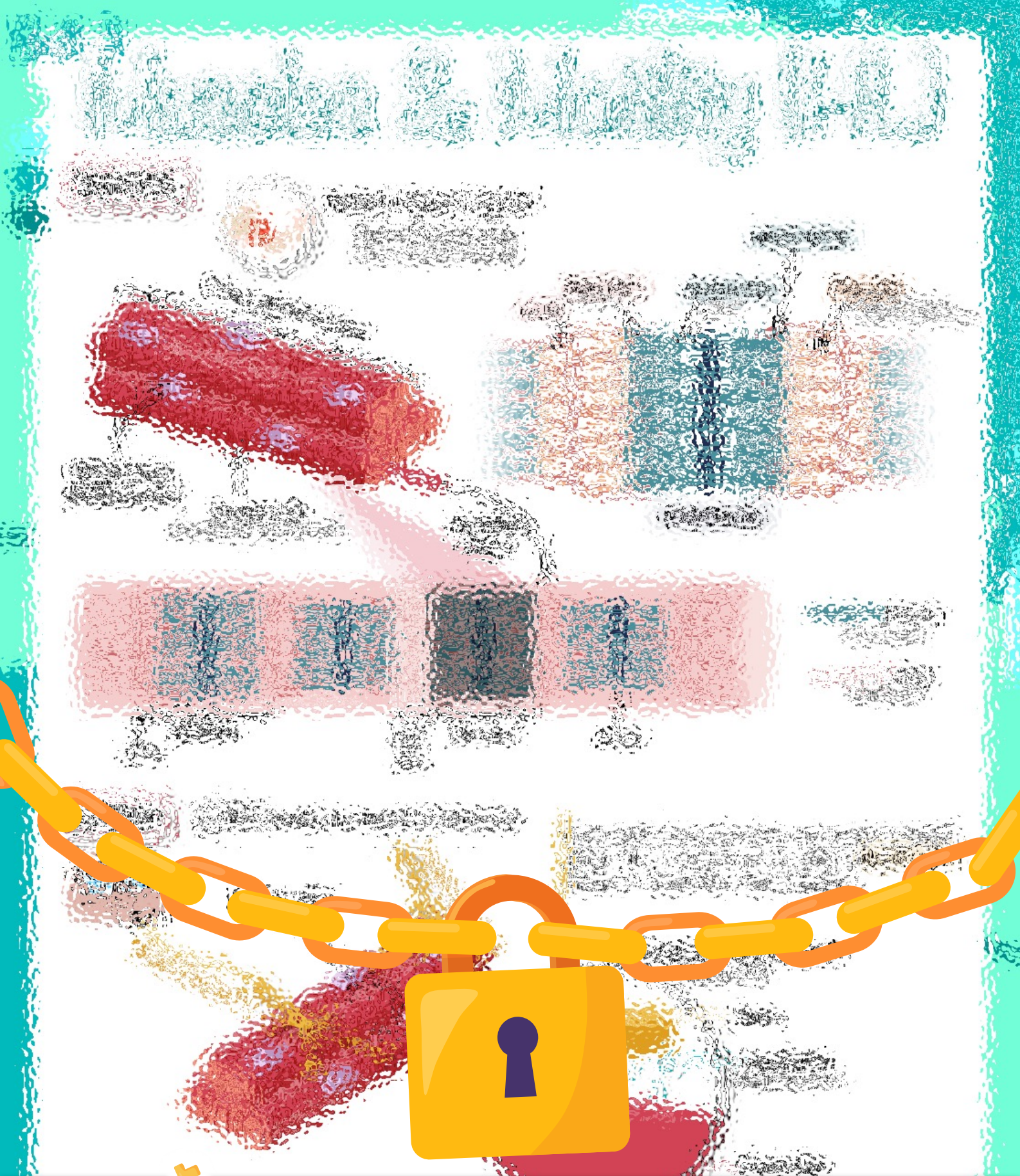
North American populations have established permanent colonies on the Hawaiian islands.



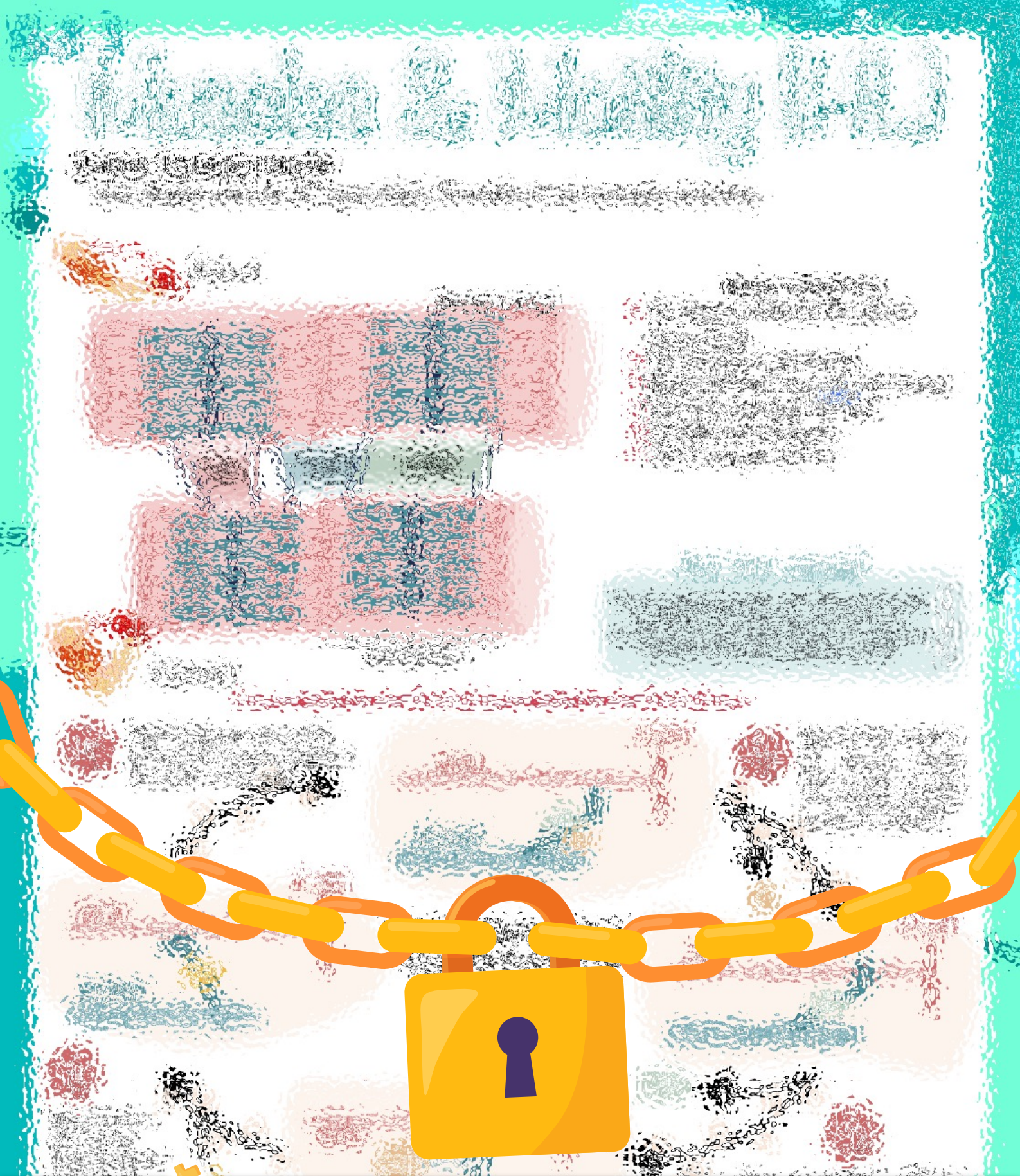
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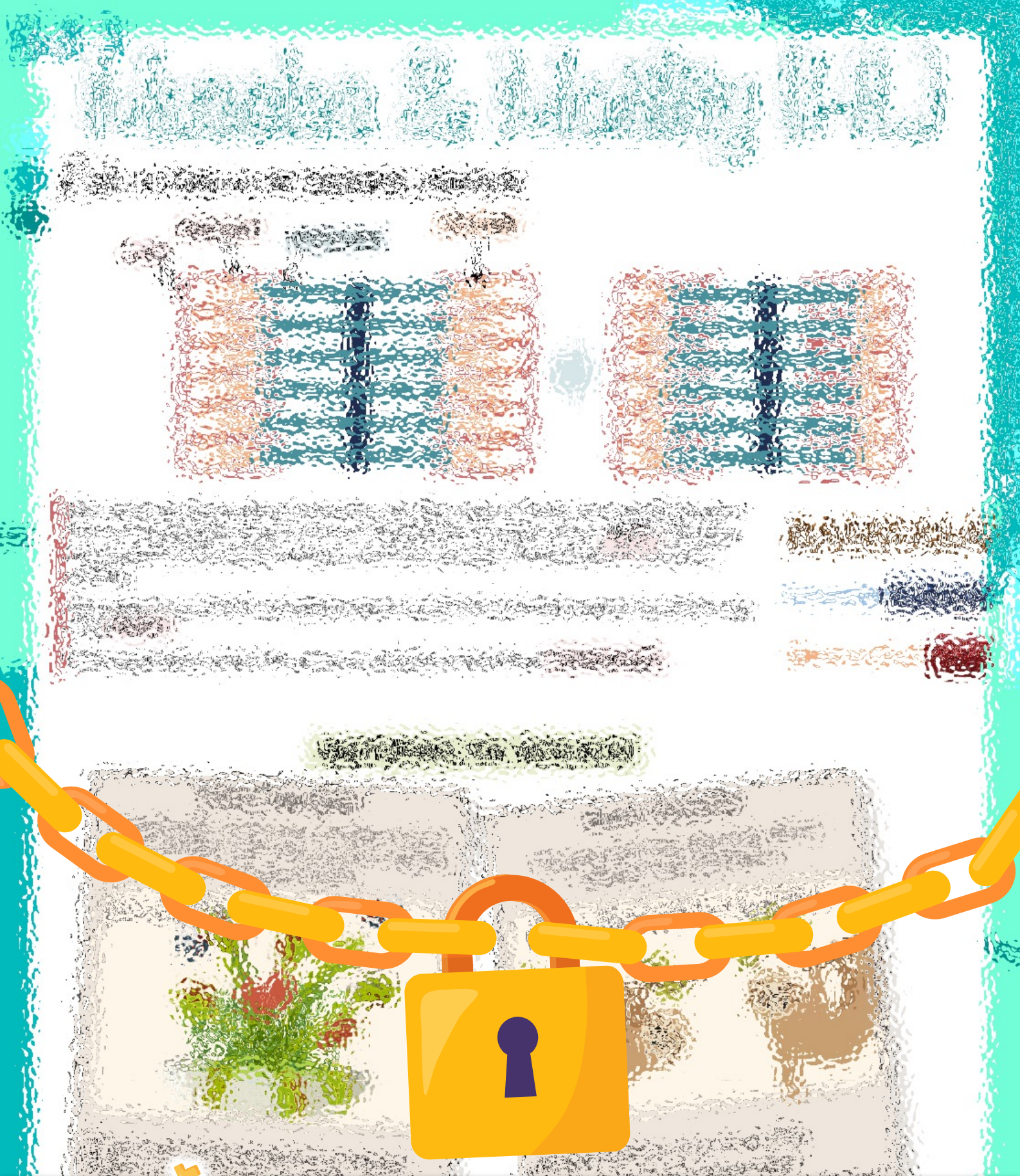
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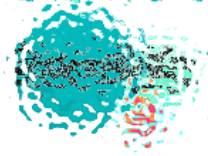
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