

What makes you curious?

**Every discovery in botany
and ethnobotany starts
the same way - someone
noticed something and
asked a question.**





The Blind Girl (Millais)



What is ethnobotany?

It's how people use plants for food, medicine, tools and stories.

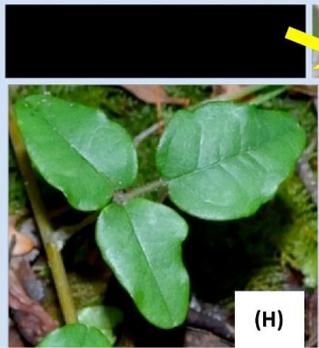
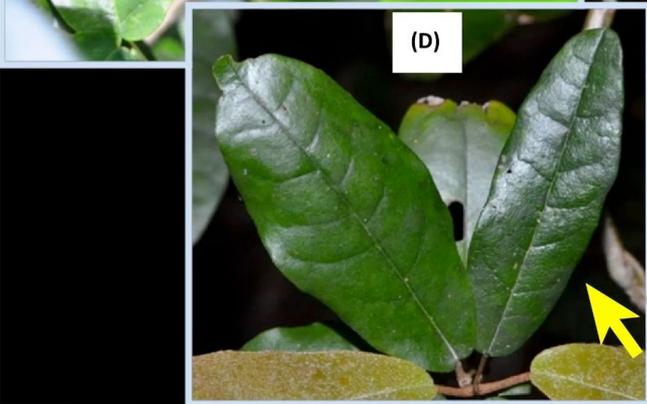
It's learning how people learned from plants.

What is biomimicry?

It's when humans look at plants and animals and say, "Hey, that works!" and try it themselves.

Biomimicry means nature is the teacher.

People have always learned from nature using every sense they had



Christina's World (Wyeth)



ANNIVERSARY OF THE END OF THE 1977 SECTION 504 PROTESTS

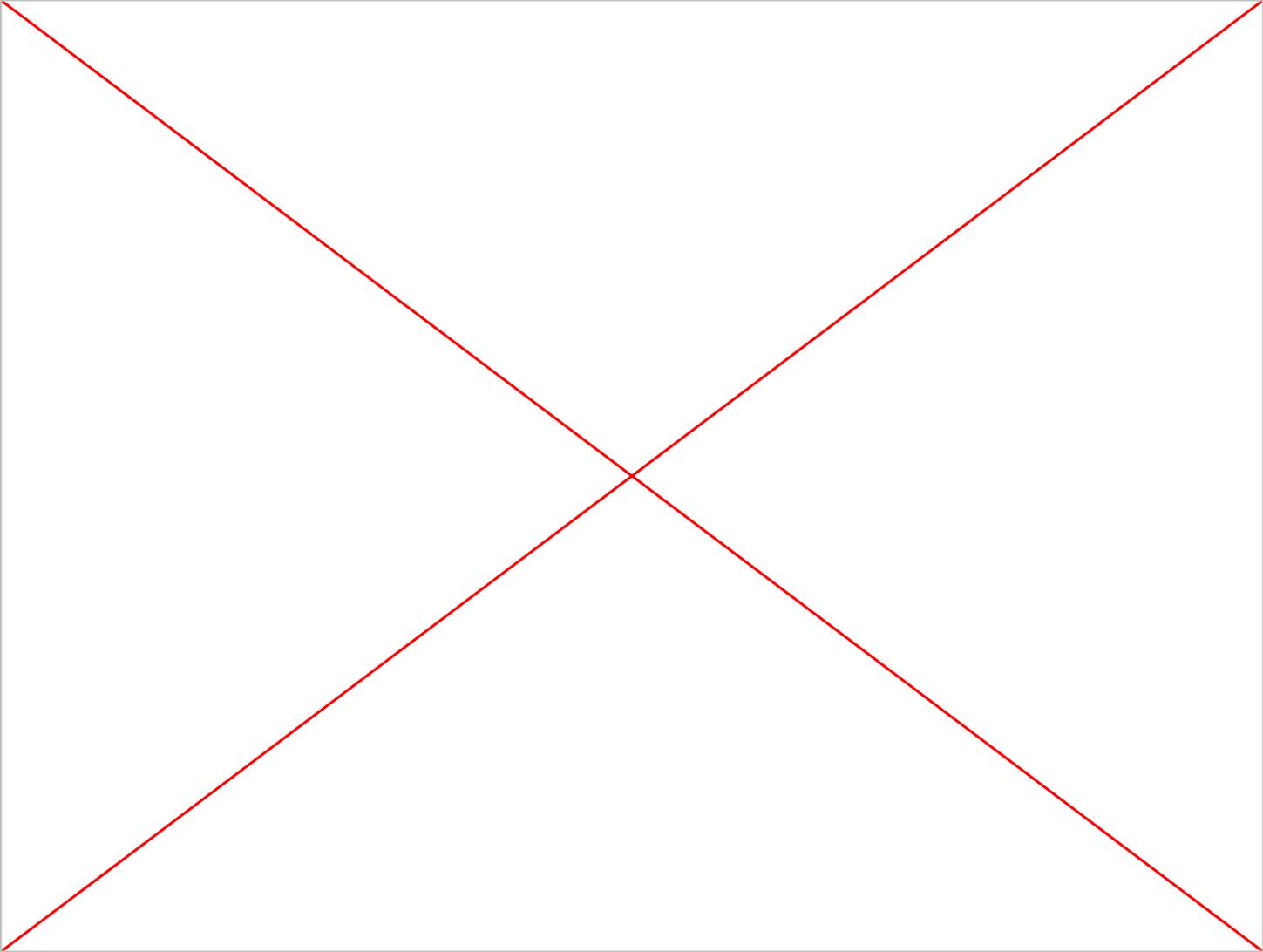






Morning Coffee





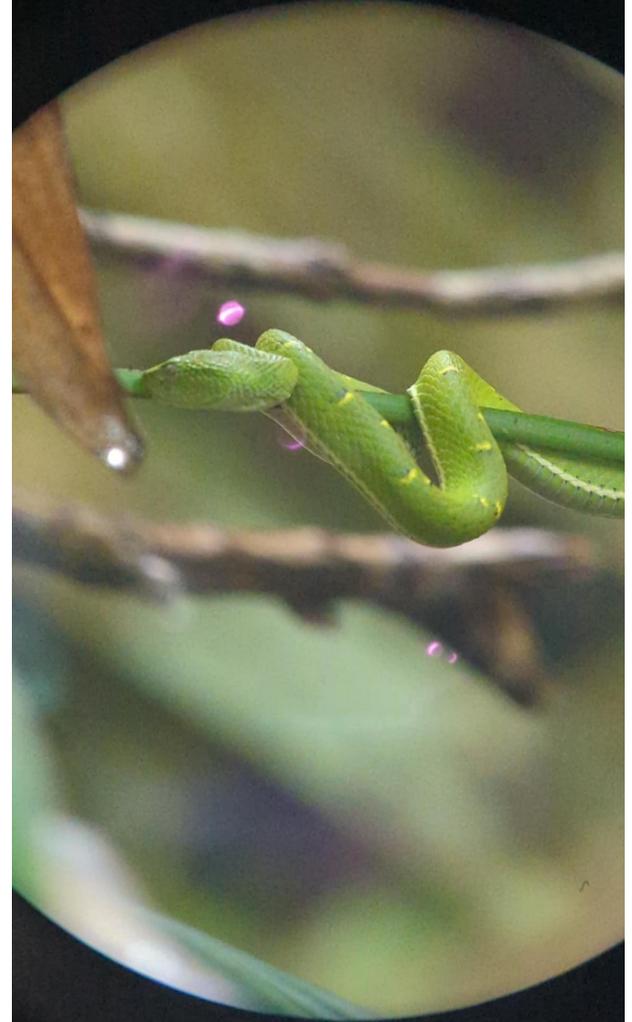
Costa Rica Snake



Costa Rica Snake



Close-up



Coffee Beans don't ripen at the same time.



California Coffee
berry (*Frangula
Californica*)



Buzz Pollination

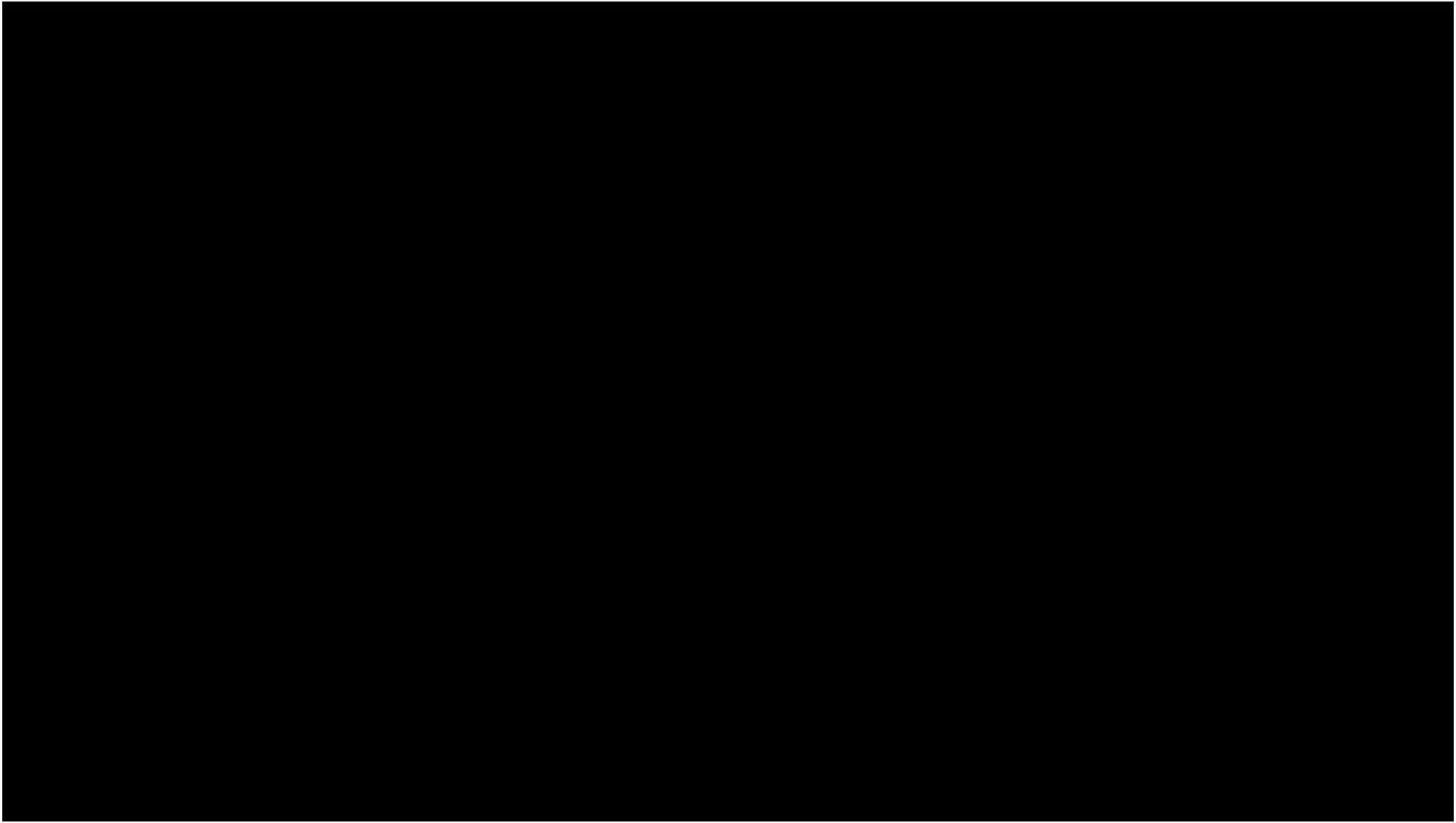
Some flowers keep pollen in tiny holes - bees must buzz to shake it out. Flowers easy to reach, no buzzing needed. Plants that need buzz: tomato, eggplant, peppers, blueberries, cranberries. Strawberries don't 'need' buzzing but bumblebees still excel and dominate the industry because they are:

Active in cool, low light conditions

Visit more flowers per minute

Large fuzzy bodies gives a better pollen transfer

Work earlier and later in the day than honeybees



Native Bees

California has over 1,600 kinds of bees

The US has about 4,000 kinds

The world has about 20,000 kinds

California had more than enough native bees long before European honeybees arrived in 1853. They were brought for honey and human convenience, not plant survival. A man named Christopher Sheldon brought 12 beehives but only one hive survived and made it to San Jose. That one hive grew into more hives very quickly.

Today, honeybees are so important for food that the government calls them, “livestock” because they help grow crops worth billions of dollars. Native bees, however, do the job better and rarely sting. Honeybees are the ones humans can load onto a truck.

What is a California Native Plant?

A plant that was growing here before big changes happened. Many people use the time before the first California missions were built as the ‘before’ line.

What is a Non-Native plant?

They moved here because people brought them. They're visitors from other places. Some visitors behave nicely. . . and some don't.

What are Invasive plants?

- Invasive plants don't play fair.
- They spread too fast and push other plants out.
- They take over and don't share.
- Invasive plants can make it hard for native plants and animals to survive. “How do we know a plant is invasive?”

Sometimes we can **look at history in the ground itself!** The old adobe bricks from California missions were made with **clay, straw, and sand**, and they accidentally trapped **seeds and pollen** inside.

- The earliest bricks **don't have mustard or tree tobacco seeds**.
- Later bricks **do**, showing that these plants arrived after the missions were built.

Some stories say the padres planted mustard along trails, but that's mostly **legend**. What the adobe bricks really show us is a **time capsule** of what plants were already there — and what came later.

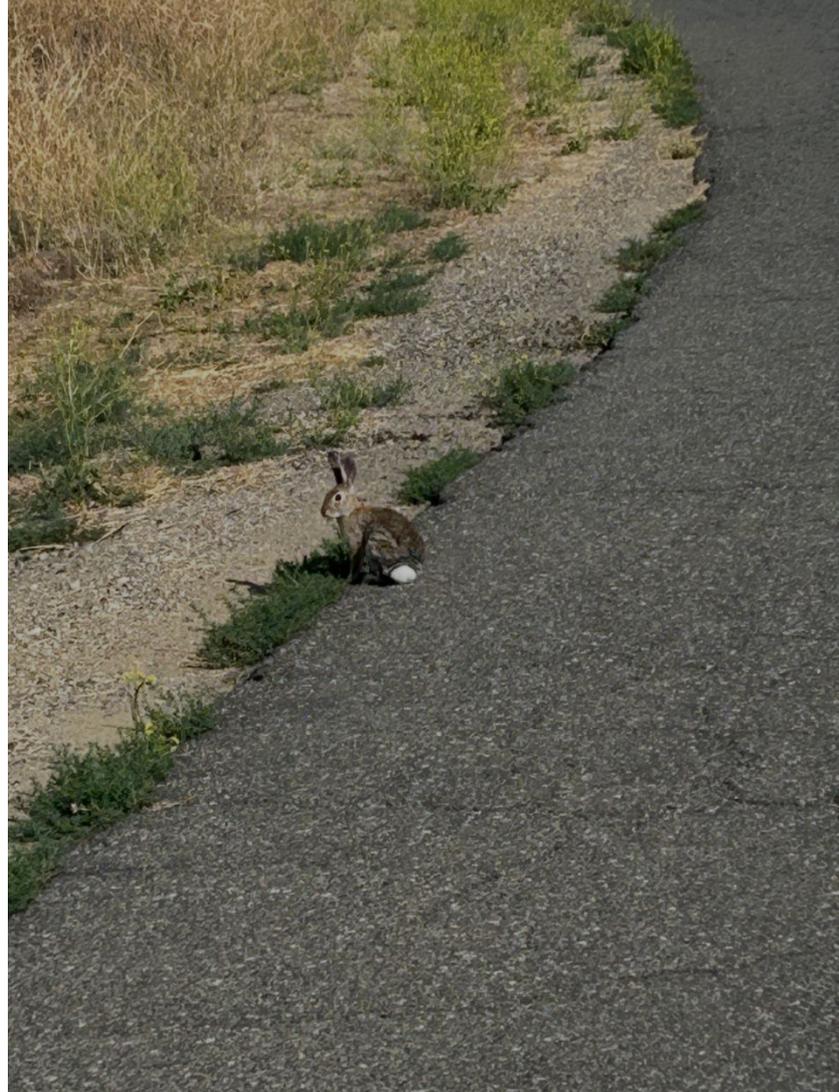
So, when we say a plant is **invasive**, it means it **wasn't here originally** and **spreads fast**, sometimes taking over places where native plants used to grow.



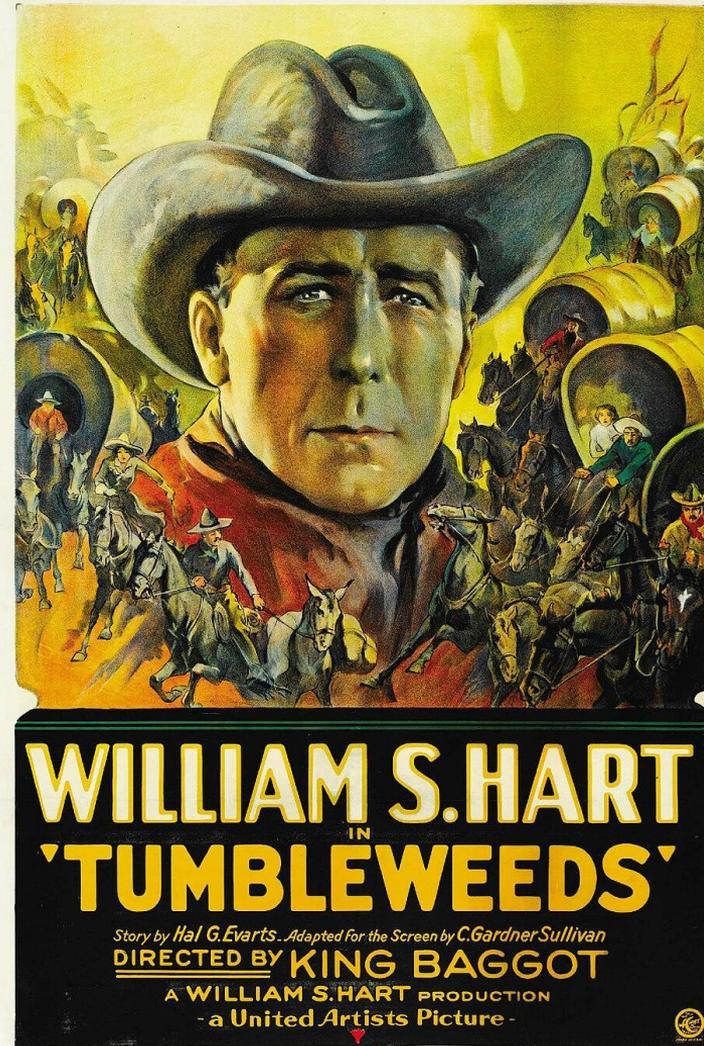
Poison hemlock common in 1800's garden



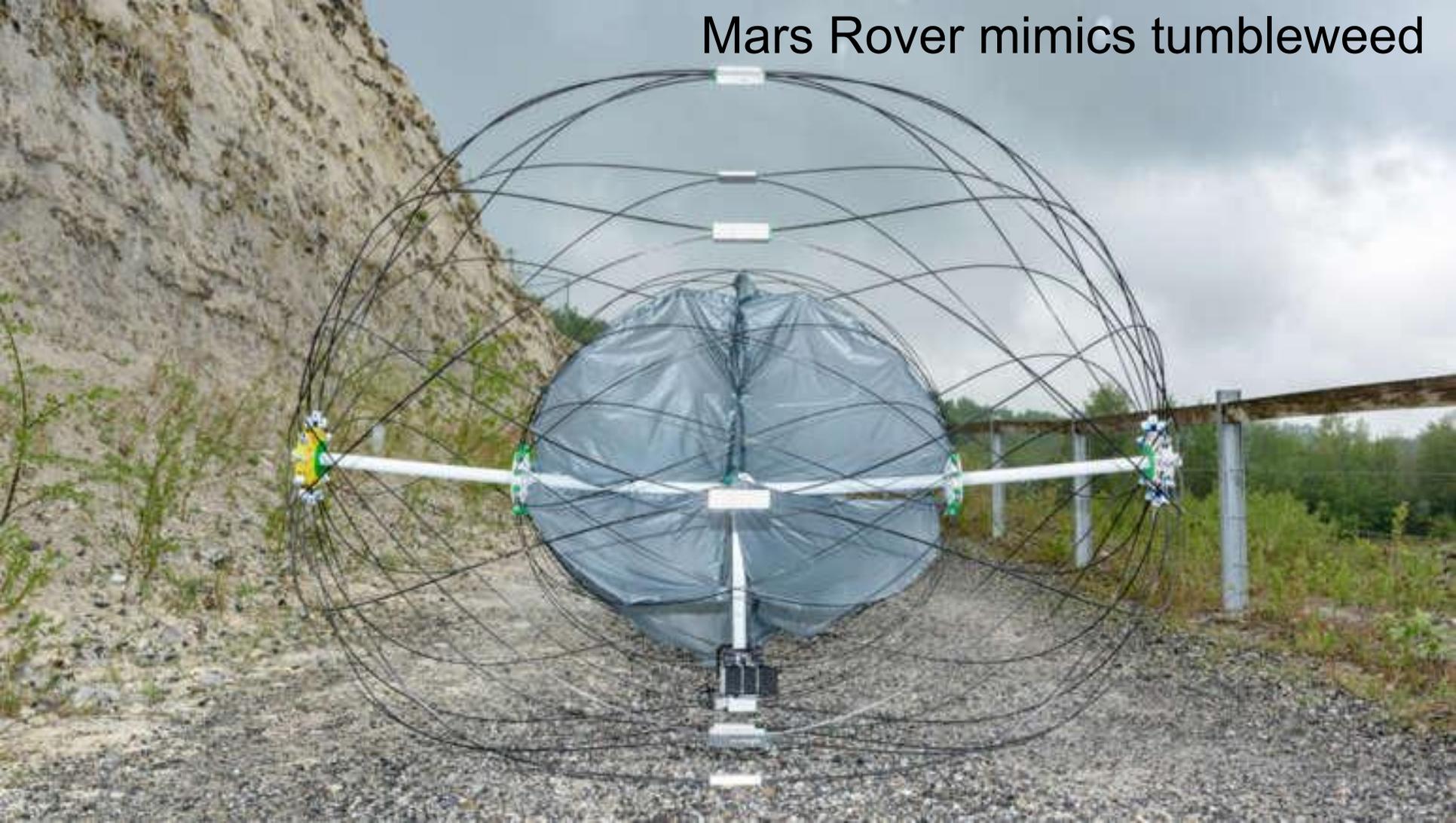
Rabbit eating tumbleweed



William S Hart (1925)



Mars Rover mimics tumbleweed







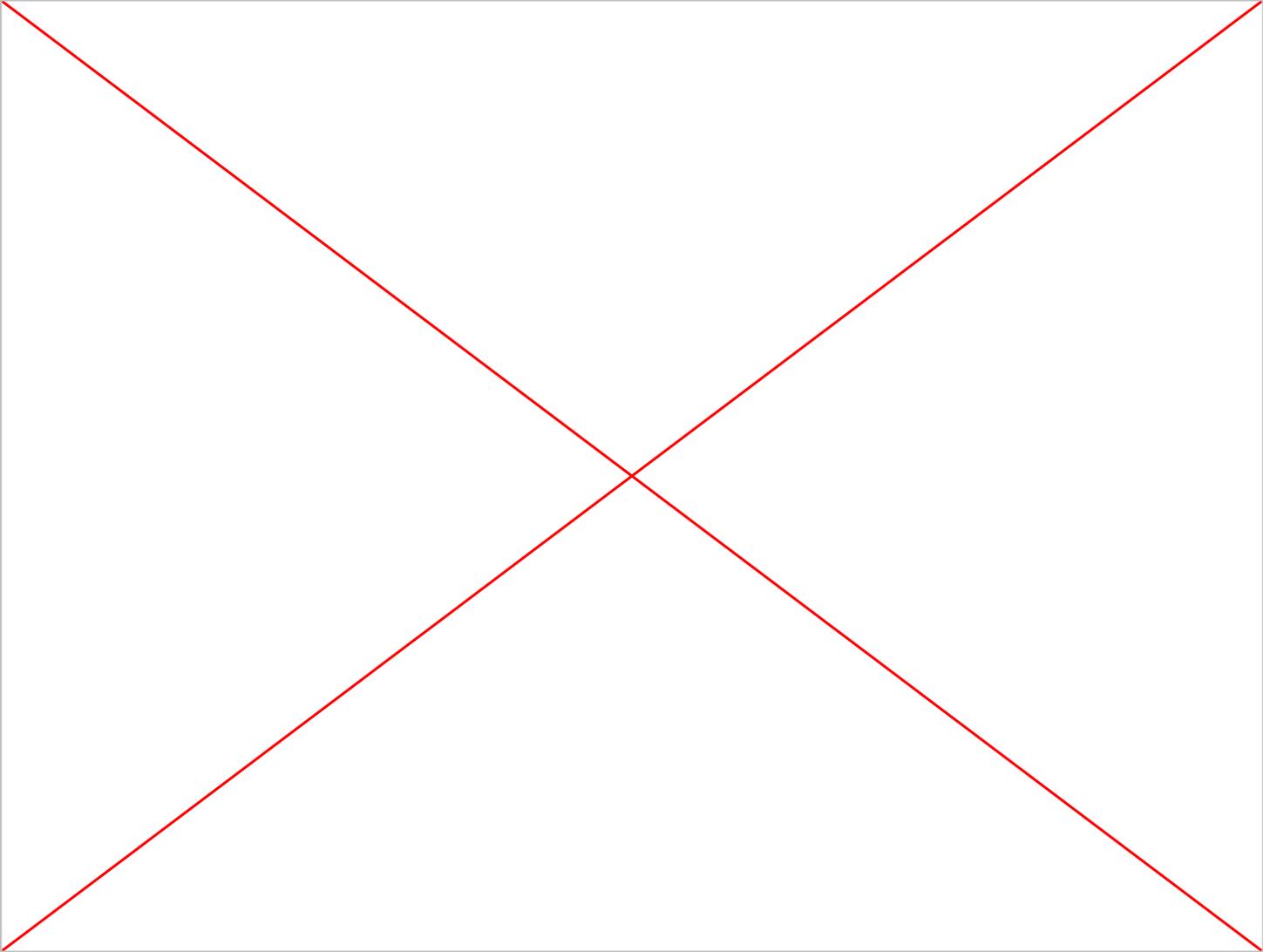
Your country needs

FLAX

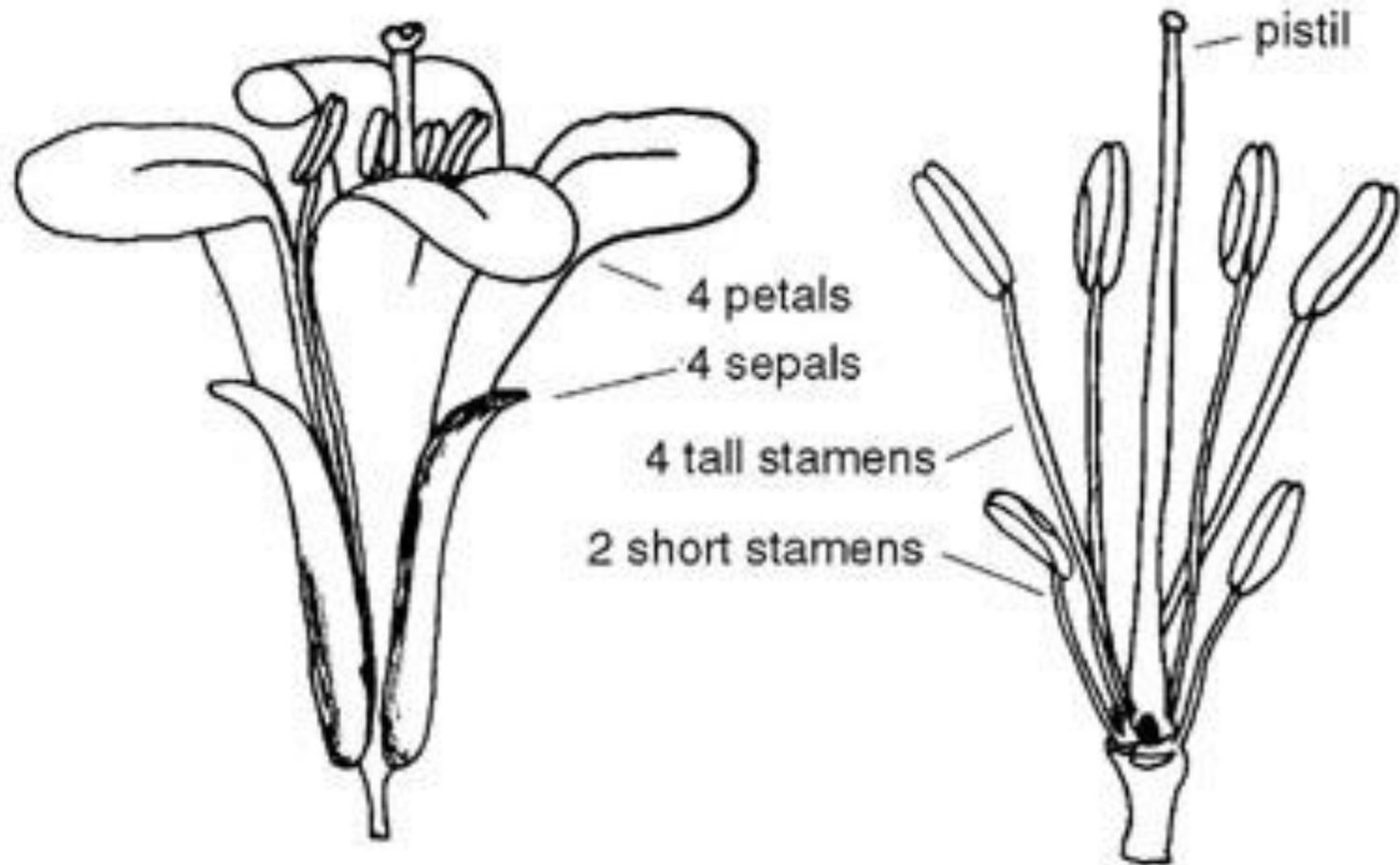


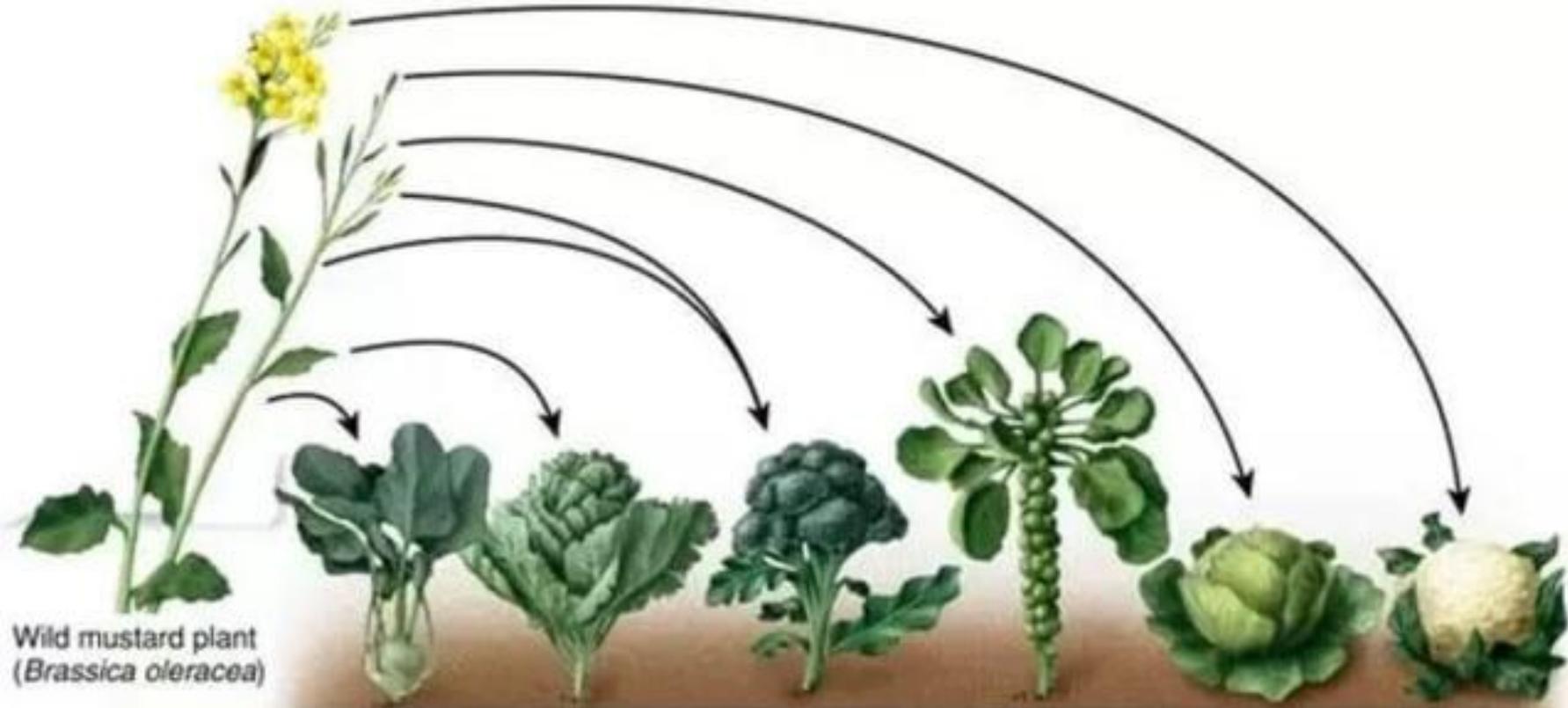
AND WILL PAY WELL FOR IT

See your AAA County Committeeman



Patterns of the Mustard Family





Strain	Kohlrabi	Kale	Broccoli	Brussels sprouts	Cabbage	Cauliflower
Modified trait	Stem	Leaves	Flower buds and stem	Lateral leaf buds	Terminal leaf bud	Flower buds

Law and Order



Turkey vulture sitting on dead skunk

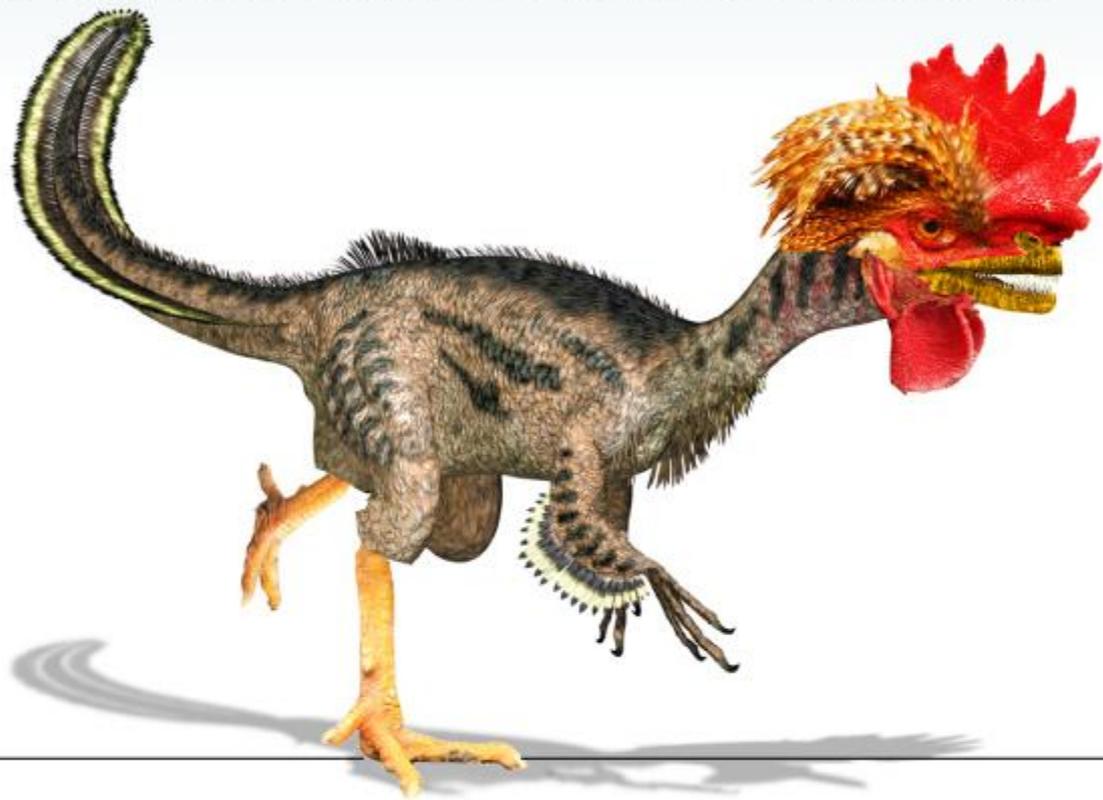


Plant eating dinosaurs of California



RETURN OF THE DINOSAURS? REVERSE-EVOLVING A **CHICKEN-O-SAURUS!**

Behold *dino-chicken*. Paleontologist Jack Horner observes that since birds are the descendants of long-extinct dinosaurs, why couldn't we *turn a chicken back into a dinosaur?*

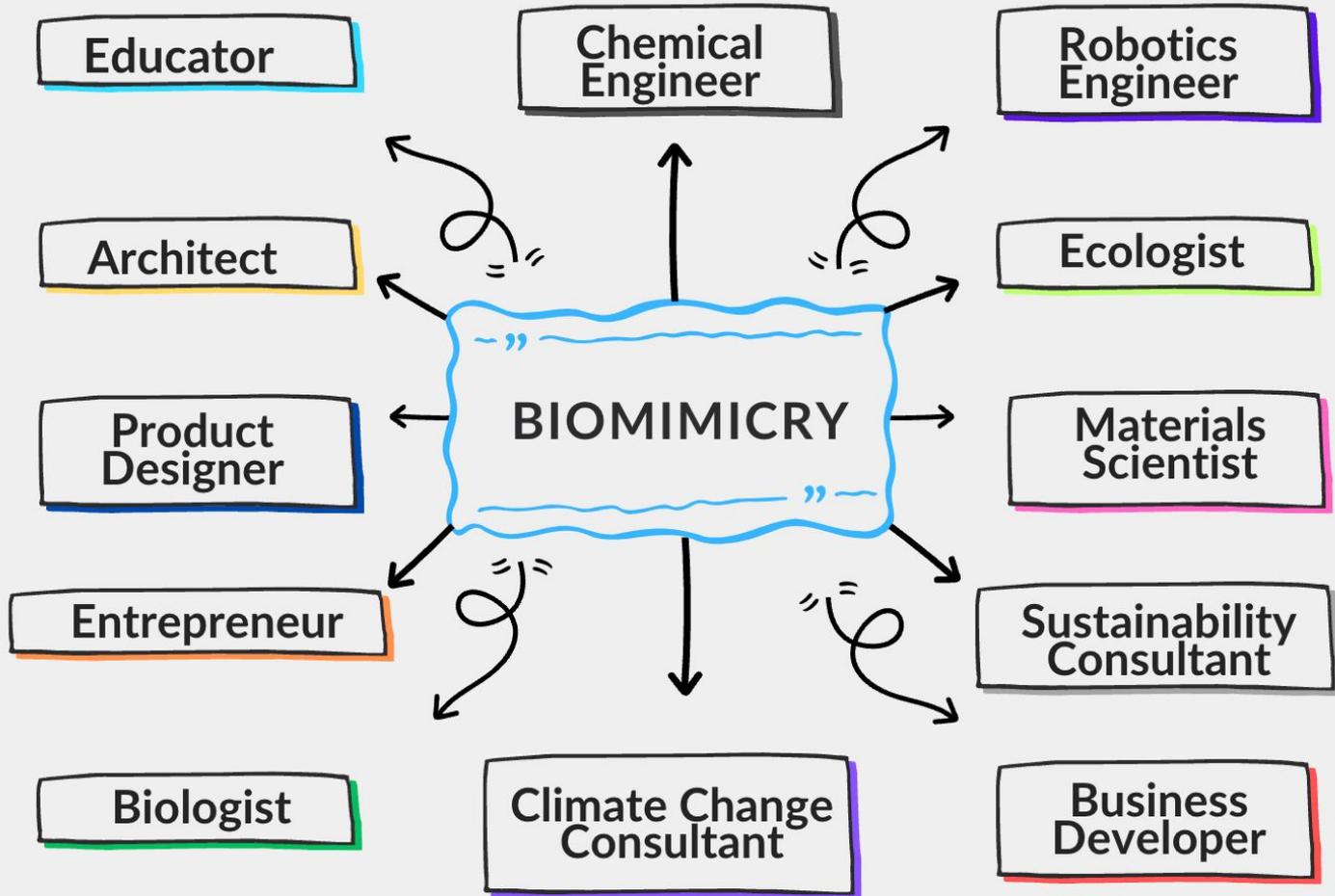




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A bubble!



The public is on edge,
so it's more important than ever

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