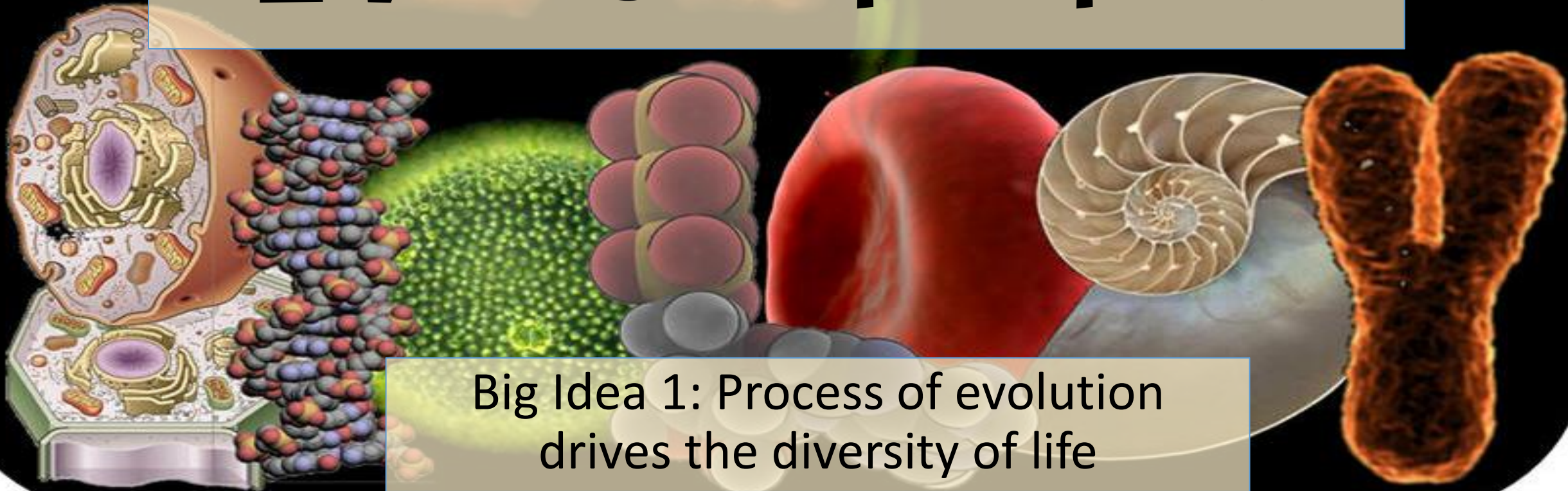


WELCOME to Our EVOLUTION UNIT!



Big Idea 1: Process of evolution
drives the diversity of life



Further varieties
of Cauliflower



Broccoli



Cabbage



Kale



Cauliflower



Wild Mustard



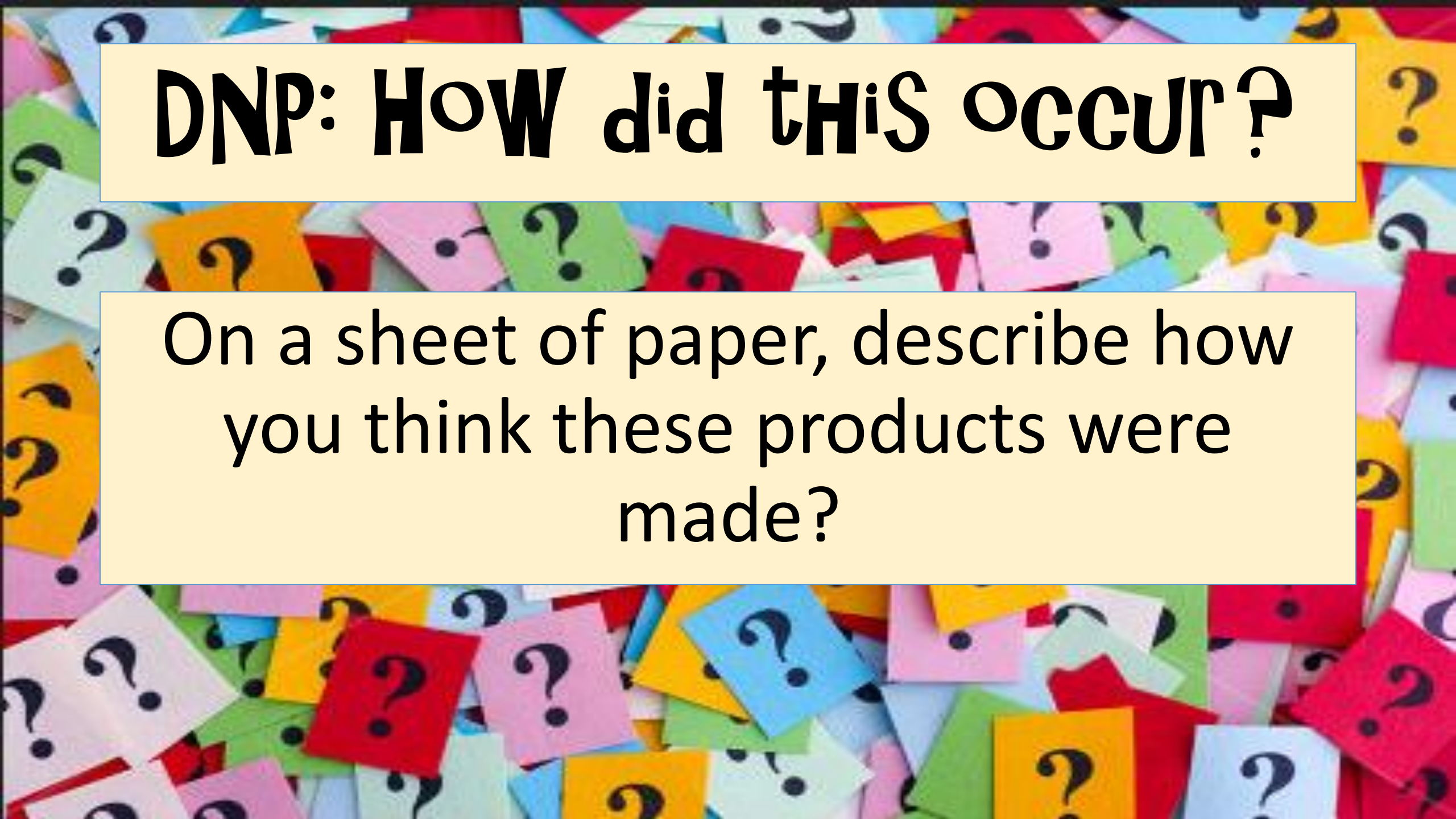
Kohlrabi









The background of the entire image is a dense, overlapping collage of small, colorful paper scraps. Each scrap is a different color (red, yellow, green, blue, pink, white) and features a large, black question mark. The scraps are scattered across the entire frame, creating a textured, busy background.

DNP: HOW did THIS occur?

On a sheet of paper, describe how you think these products were made?

Share out!

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EVERYONE YOU WILL EVER MEET
KNOWS SOMETHING YOU DON'T.

BILL NYE

Artificial Selection!!!

- Humans select desired traits
- Breed orgs with those desired traits
- Only recently occurring (last 200 years)



Artificial vs Natural Selection

- Nature selects favorable traits
 - Individuals w/ favorable **phenotypes** (physical features) are more likely to survive and produce more offspring, passing down traits to subsequent generations!
 - Millions of years!



Key Words/Let's Define

- Traits
- Alleles
- Genes
- Phenotype
- Genotype

Super Cow



AP INVeStigation 1: ARtiFicial SeLection Lab

- **Part One:** In the box below, draw a hypothetical organism that is an excellent runner. Remember that this is independent work. You will get a chance to compare your drawings later!

- **Part Two:** Now compare your drawing with those by other members of your team. List the common features on the lines below.

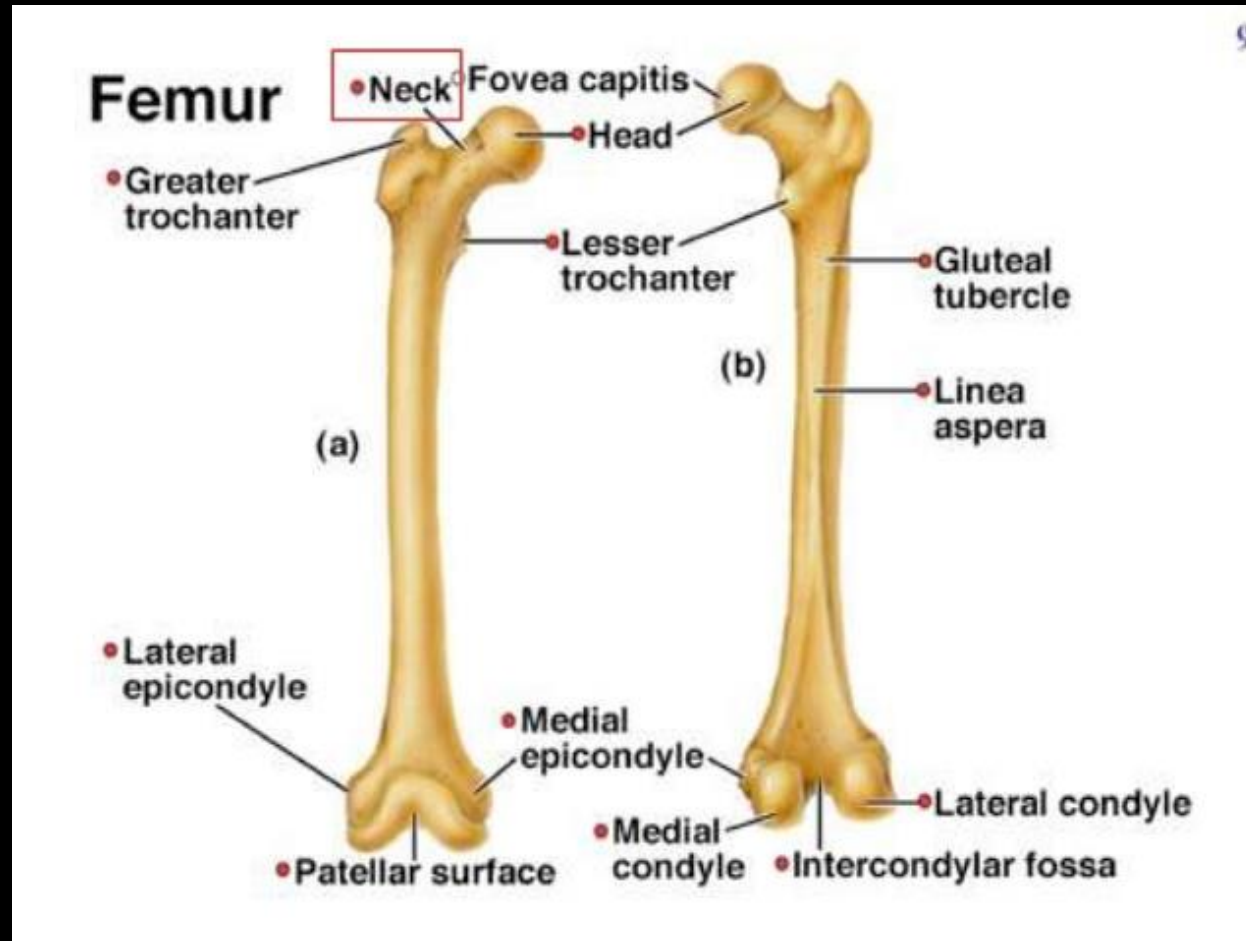
AP INVeStigation 1: ArtiFicial SeLEction Lab

- **Part Three:** Write a paragraph to explain how natural selection might act on a population of organisms that varied in the traits you listed.

- **Part Four:** Measuring femur characteristics of mice that have been selectively bred to increase high endurance running. (11 generations)
Be sure to be consistent with each photograph you measure.

Guiding Question

What adaptations evolve when mice are bred for high endurance running in a wheel?



Files of Pics can be found at

http://www.biology.ucr.edu/people/faculty/Garland/G12_Split_for_STEM/

- Control Mice and Selected Mice
 - Female vs Male
- Many different samples in each