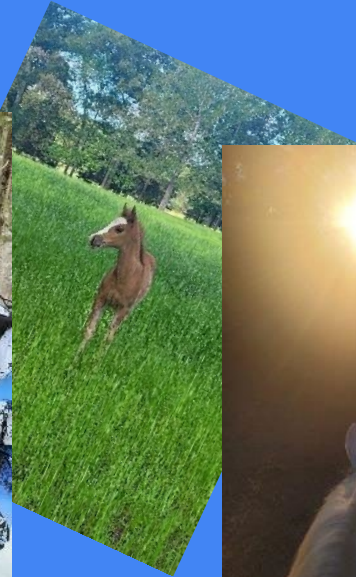
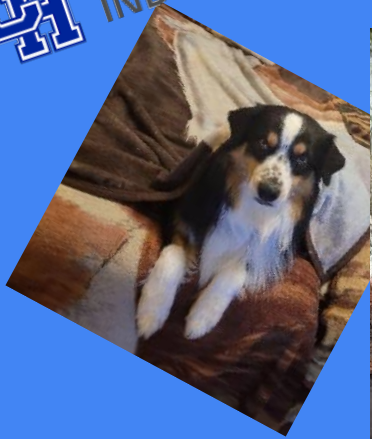


Ag in the Science Classroom

Michaëlle Coker, Ed.D.

A Little About Me

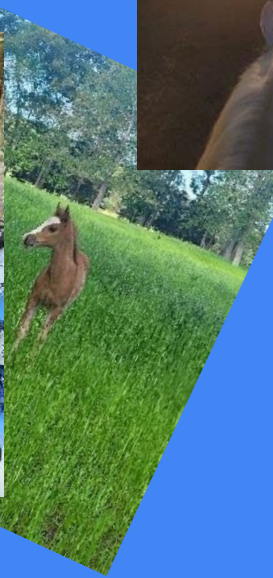
CH CENTRAL HEIGHTS
INDEPENDENT SCHOOL DISTRICT



A Little About Me



CH CENTRAL HEIGHTS
INDEPENDENT SCHOOL DISTRICT



How to Incorporate Ag

- Ag is Life Wall
- T-TESS
- Same Concept-New Resources
 - <https://texasmatrix.agclassroom.org/matrix/>

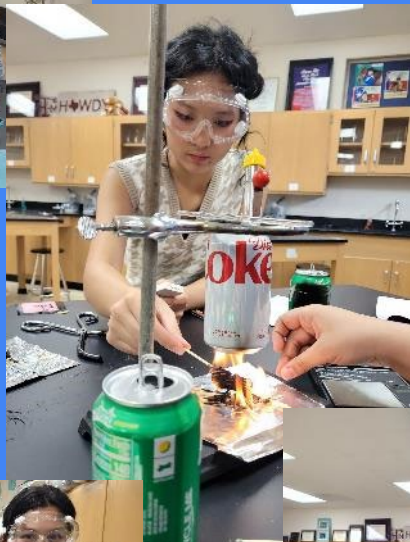


Biology



- Hydroponics Garden
- Milk and Food Coloring
- The World is an Apple
- Souring Milk
- Bacterial Meat
- GMOs
- Bread Making
- Genes and their Environment
- Making a Champion-Equine
- Animal Breeding
- Apple Evolution
- Ag Trophic Levels
- Ranch Starter
- Good Buddies
- Oh Deer
- Living Necklaces
- Bug Hunt
- Nervous System
- Skeletal System
- Watermelon Mitosis and Meiosis
- Strawberry DNA
- Flower Origami
- Bug Hotels
- Beeswax Lip Balm
- Salsa Making
- Mealworm Wall Art

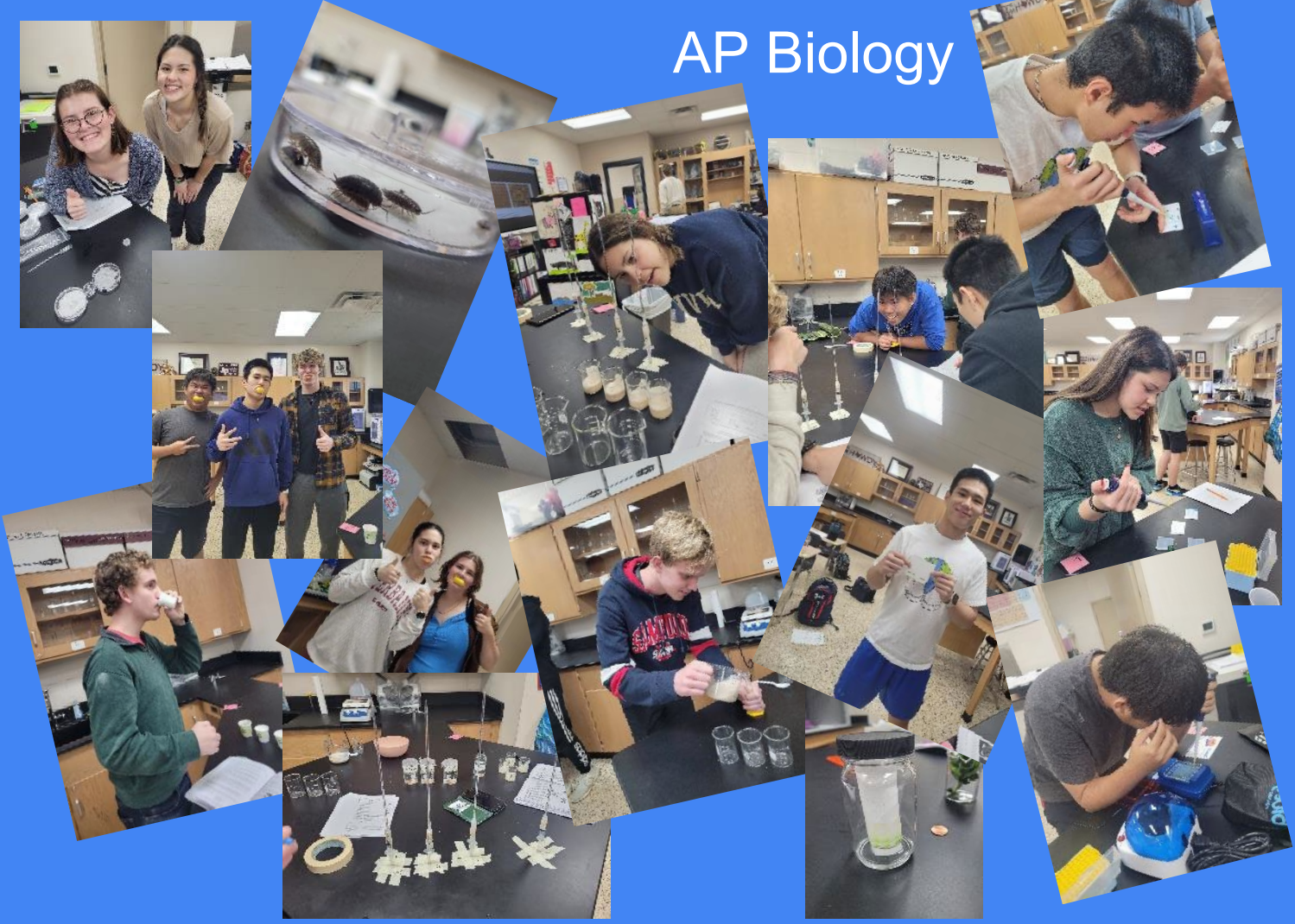
AP Chemistry



- Cheese Making
- Ice Cream
- Food Calorimetry
- Le Chatelier's Principle-Butterfly
- Pea Tea
- Titration-Aspirin
- Popcorn
- Wool Dyeing
- What's in Fertilizer

AP Biology

- Animal behavior
- Honey fermentation
- Potato and onion osmosis
- Who's the sire
- Leaf chromatography
- Cell signaling
- WI fast plants
- Predator-prey
- Termite behavior



Physics

Force and Motion 4A-4E (IPC)

Secretariat at the Belmont Stakes

<https://www.youtube.com/watch?v=vfCMtaNiMDM>

Time: 2 minutes and 24 seconds

Distance: 1.5 miles (2,400 meters)

How fast was Secretariat running at the Belmont Stakes (mph)?

Won by 31 horse lengths!

Horse length is 8ft. How many feet did Secretariat win by?

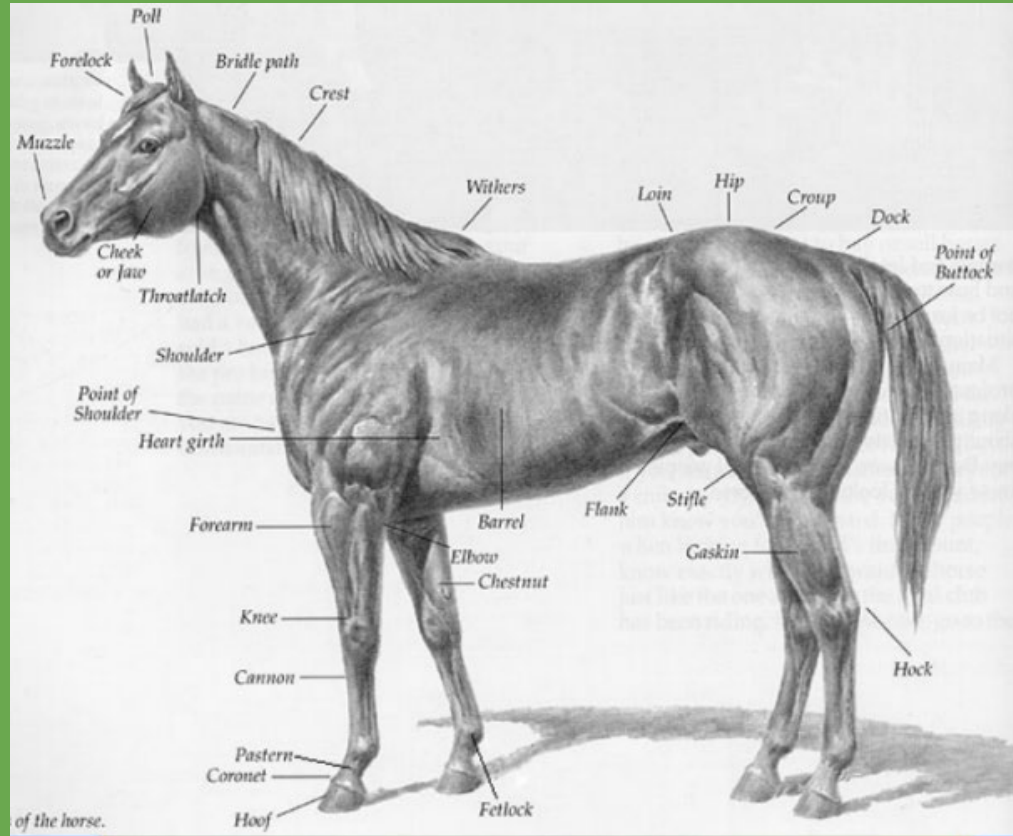
The Jockey Club

- Registers Thoroughbreds
- Formed in 1894
- Live cover only
 - Pasture
 - Hand (most commonly done)
- Three-Year-Old Triple Crown
 - 13 Triple Crown Winners
 - First Sir Barton in 1919
 - Last Justify in 2018
 - Kentucky Derby
 - Churchill Downs in Louisville, Kentucky
 - Red Roses
 - Track Record- 1.25 miles in 1:59 held by Secretariat
 - The Preakness
 - Pimlico Race Course in Baltimore, Maryland
 - Black-eyed Susans
 - Track Record-1.1875 miles in 1:53 held by Secretariat
 - The Belmont
 - Belmont Park in Elmont, New York
 - Carnations
 - Track Record- 1.5 miles in 2:24 held by Secretariat

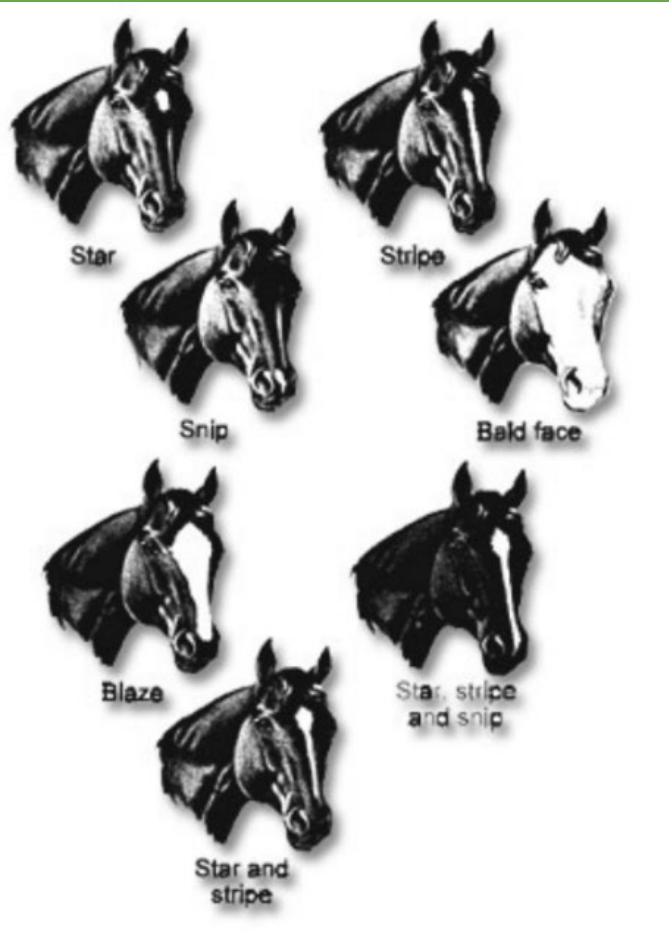
Thoroughbred

- Developed for speed
- Ancestor of the Arabian
- Used for racing, polo ponies, hunters, and jumpers
- Popular for the US Mounted Cavalry
 - General George Custer was mounted on a TB named Vic at the battle of The Little Bighorn
- Considered foundation stock for the Standardbred, American Saddle Horse, the Morgan, and the Quarter Horse

Horse Basics- Parts of the Horse



Horse Basics- Markings



Horse Basics-Coat Colors

Bay- known as the hardest color to describe but the easiest to distinguish. Will have a black mane and tail; along with black on the lower legs. May or may not have a dorsal stripe.



Black- solid black with no brown points.

Horse Basics-Coat Colors

Brown- can be almost black or dark brown with light brown highlights around muzzle, flank, and shoulder areas.



Chestnut- Part of the red family. Very similar to sorrel, just darker with a brown undertone. Can have a flaxen mane and tail.



Horse Basics-Coat Colors



White- white coat with pink skin and dark eyes.

Equations Needed for this Lab

Speed: $v = d/t$

v = speed (m/s)

Momentum: $p = mv$

d = distance (m)

Acceleration: $a = \Delta v/t$

t = time (s)

2.205lbs = 1kg

p = momentum (kg·m/s)

1min = 60s

m = mass (kg)

a = acceleration (m/s²)

Δv = change in velocity (final - initial)