

DELCASTLE
TECHNICAL
HIGH SCHOOL



My GK-12 Adventure at Delcastle

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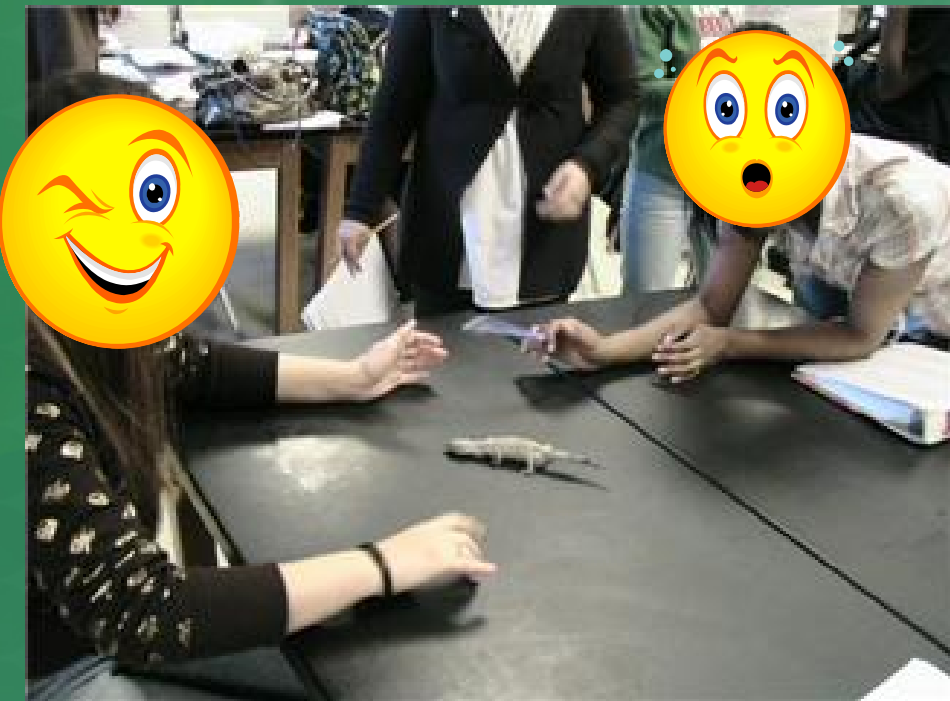
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Goals

- Engage students in scientific inquiry
- Emphasize idea that science is fun and important
- Integrate new hands on activities in the classroom to stimulate student learning and address misconceptions





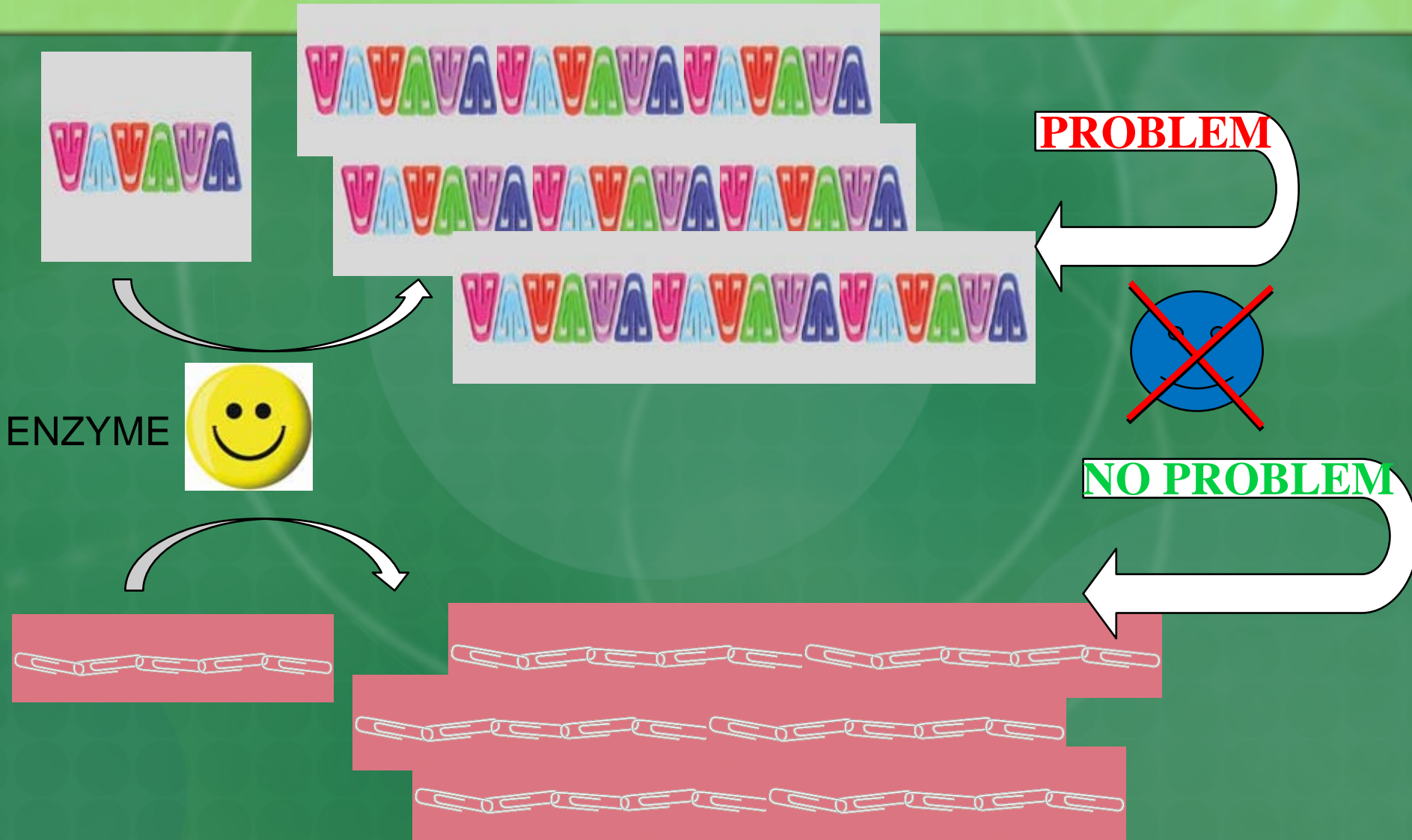
Contributions

- “Hoo eats who?” - Owl pellet dissection in Integrated Science
- “What’s all the fuss about fats?” - Lorenzo’s Oil activity in Chemical-Biology unit of Biology
- “Bacterial resistance: Natural selection at work” - Evolution unit of Biology
- Bacterial mutations – Genetics unit of Biology

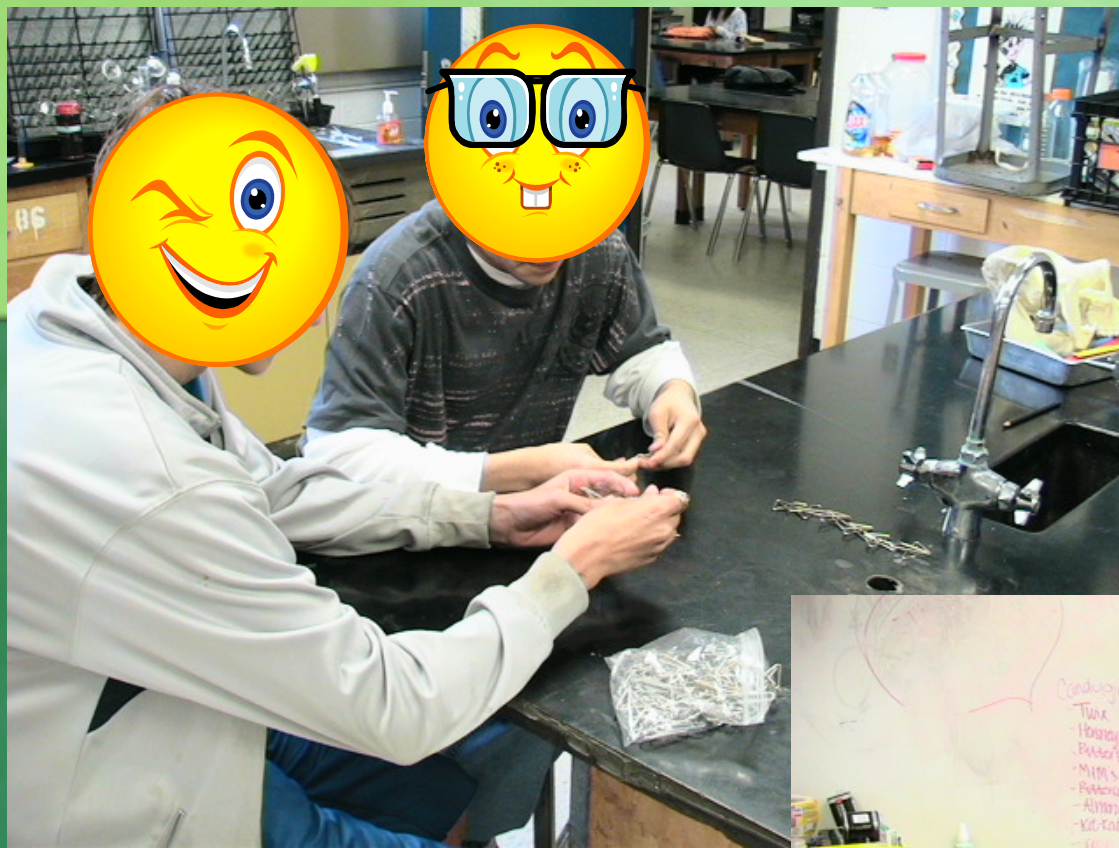
Lorenzo's Oil as a comprehensive teaching tool

- Organic molecules
- Cell biology
- Enzyme structure and function
- Membrane transport
- Homeostasis
- Nervous system
- Genetics

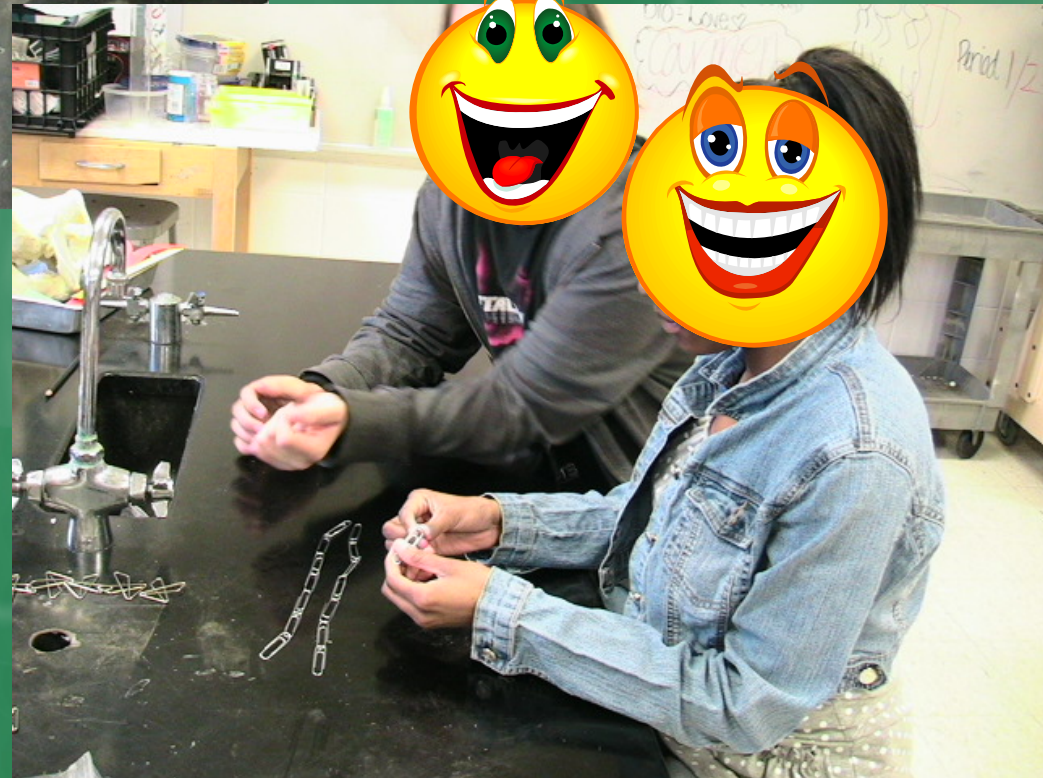
Summary of Adrenoleukodystrophy (ALD)



Students perform functions of enzymes



Allows for
visualization of
the problem on a
cellular level



Competitive Inhibition as a treatment

Less saturated fats
in the diet

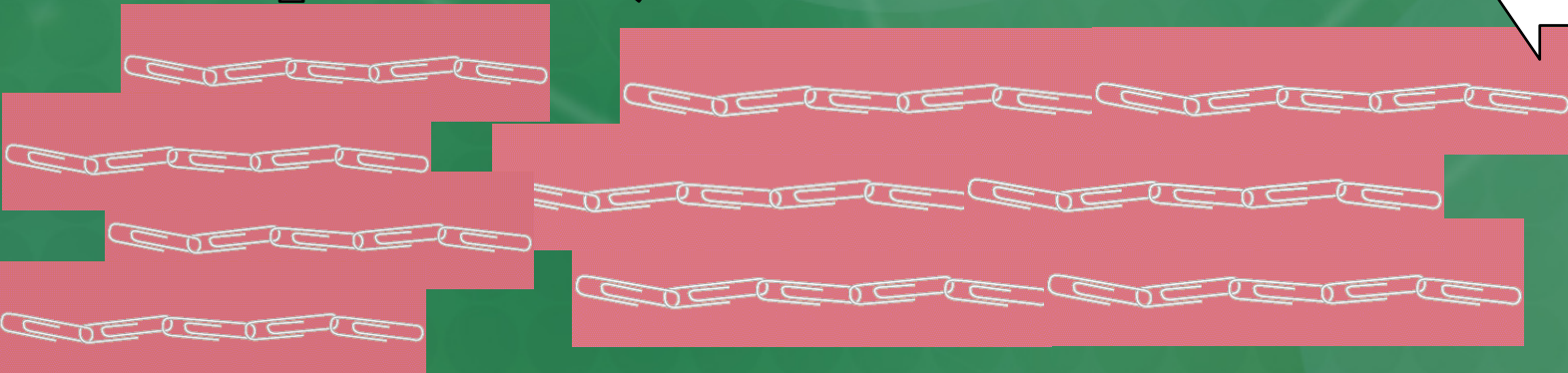


I am so busy working with all the unsaturated fats, that I don't have time to add carbon molecules to the saturated fats



GOOD

Lorenzo's
Oil



Reflections

- What a challenge!
- A truly memorable experience!!
- Overwhelming appreciation for educators!!!

Thanks to...

- Project leaders
- Teachers at Delcastle
- Fellows
- Daniel Simmons

