

*Samples from the Lab Portfolio of  
DelCastle High School*

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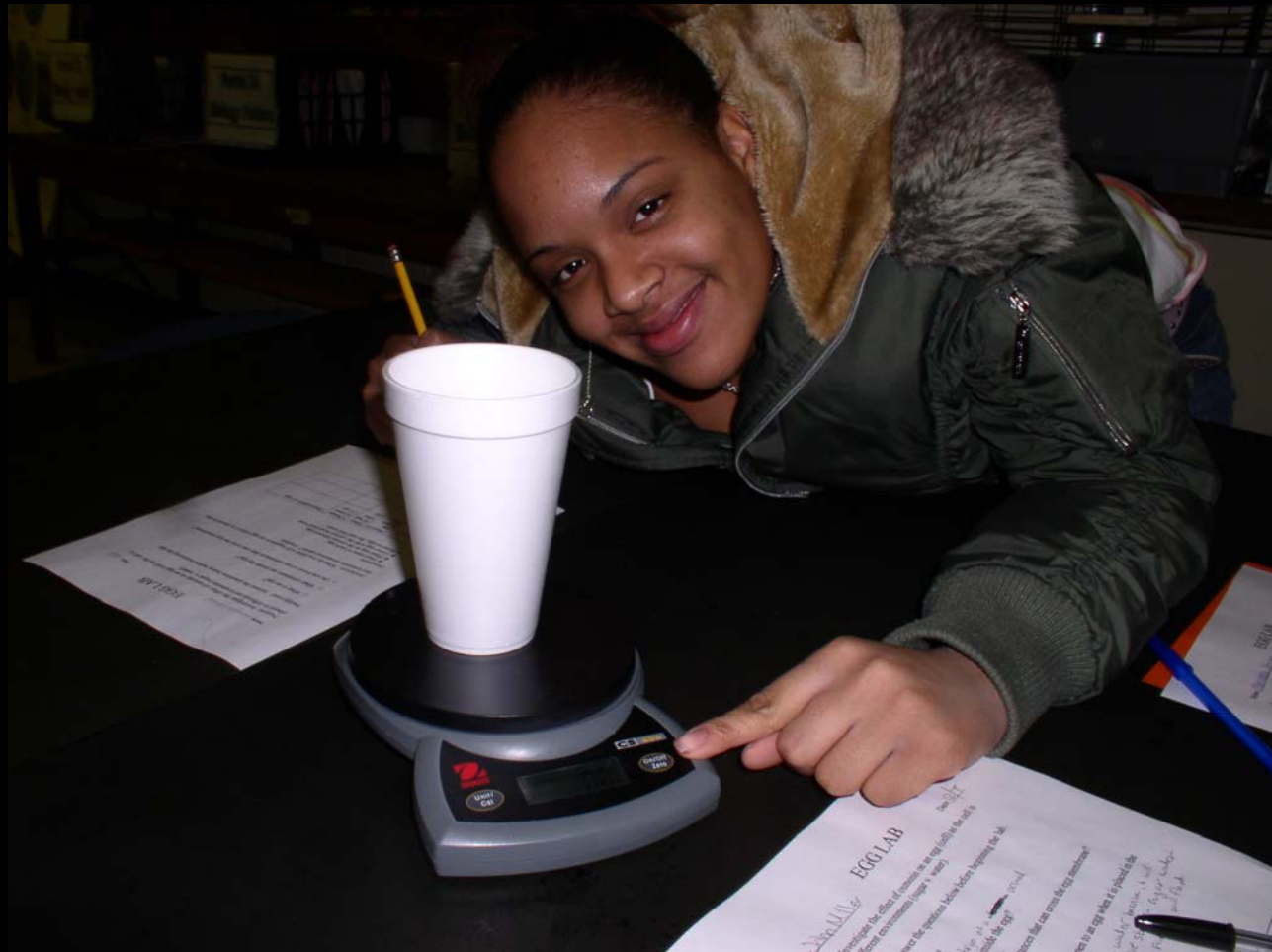


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# *GOALS*

- Bring “real world” science into the classroom.
- Demonstrate that science is fun, practical and important.
- Engage students in hands on science.

# *The OSMOSIS Lab*



*Objective: Demonstrate osmosis by weighing decalcified eggs after submersion in varying concentrations of sucrose*

# PHOTOSYNTHESIS/CELLULAR RESPIRATION



*Objective: Measure CO<sub>2</sub> levels in a beaker with plants and/or animals in it, demonstrating gas exchange*

# WHAT'S IN AN EGG?



*Objective: Run tests determining the lipid, protein and carbohydrate levels in various parts of an egg*

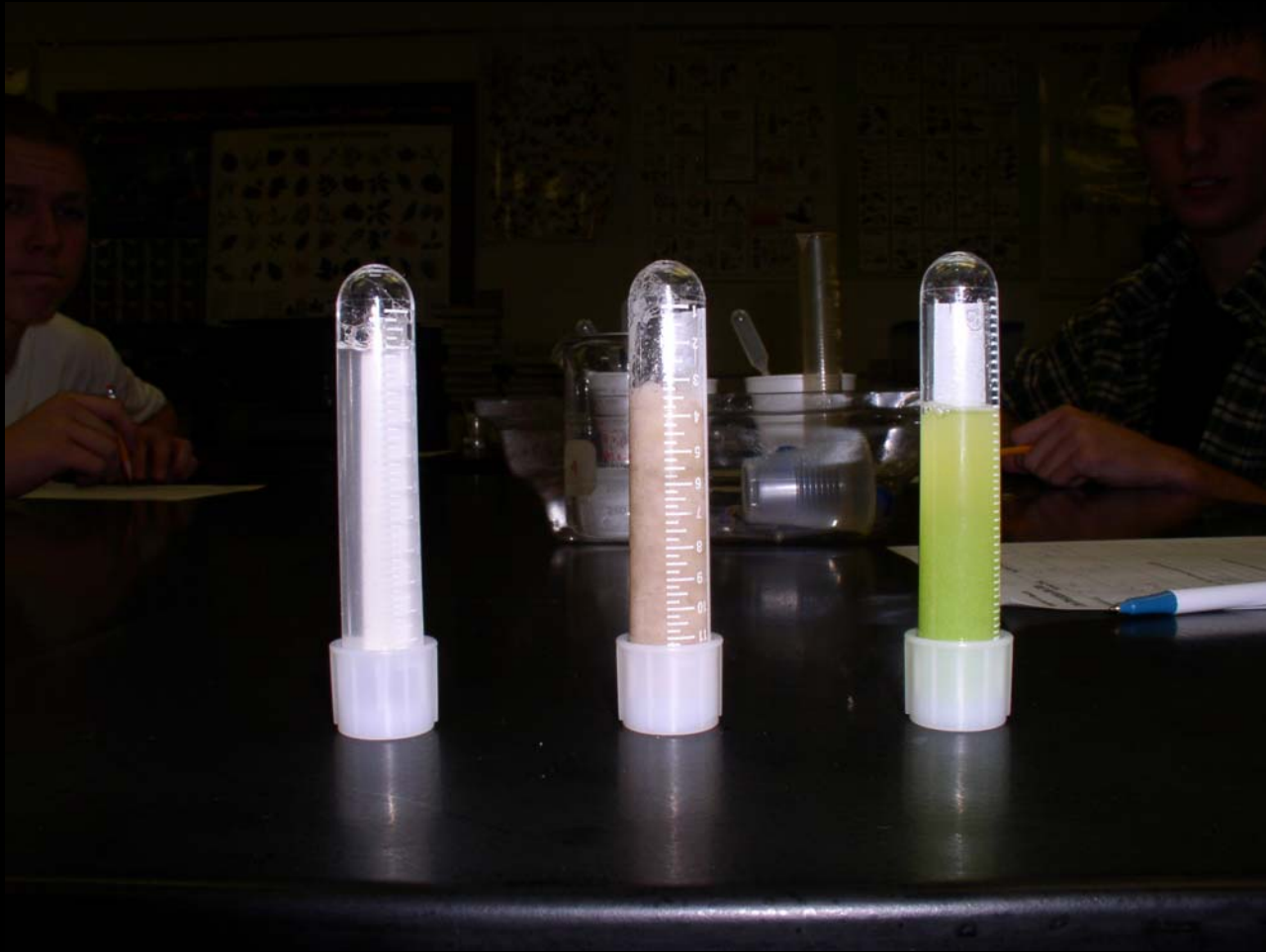


# *The ZYGOTE Lab*



*Objective: Dissect Fertilized chicken eggs and monitor embryonic development. Use caffeine to see the effect of drugs on heart rate.*

# *DNA Extraction Lab*



*Objective: Use H<sub>2</sub>O, NaCl, EtOH, and meat tenderizer to extract DNA from cheek cells.*

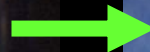
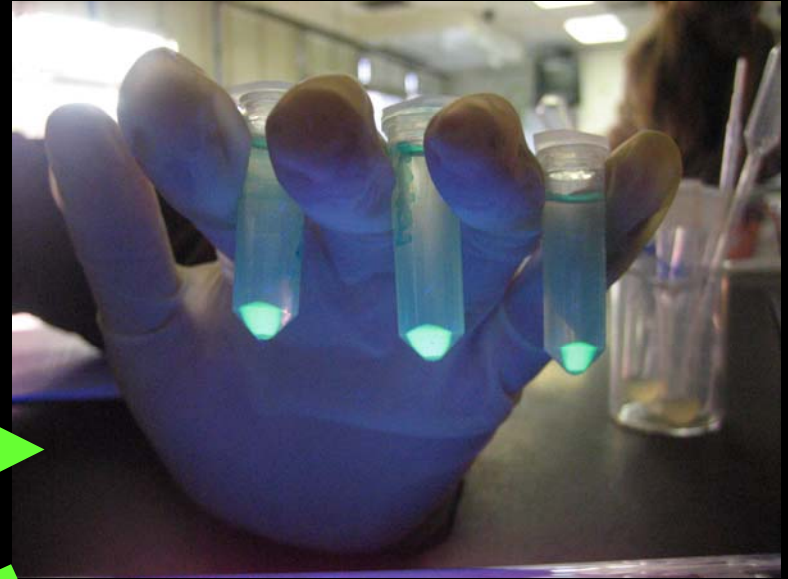
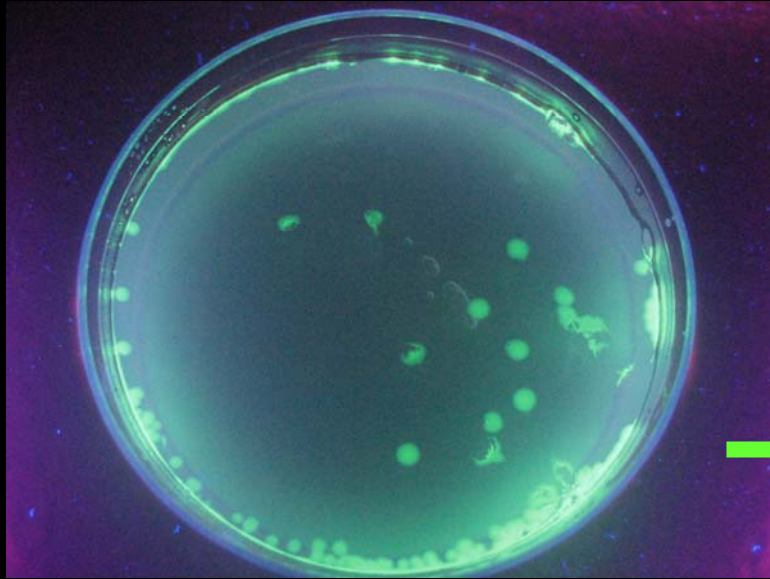
# *The MR. POTATO HEAD Lab*



*Objective: Use “alleles” corresponding to features to create unique Mr. Potato Head characters*



# *P-GLO*



# *Reflections*

- Teenagers are a difficult audience, heightened appreciation for high school teachers.
- Processing knowledge is unique to each student and individualized learning is very difficult to incorporate into a larger classroom.
- A little encouragement goes a *long* way!