

# Tuesday, February 18, 2014

Unit: Genetics

Lesson 22

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## Big Ideas

Genetic information is passed from parent to offspring.

Living things change over time: Evolution

Living things are alike yet different

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## Objectives

1. Students will be able to use their knowledge of probability, dominant versus recessive, homozygous vs heterozygous, and genotype versus phenotype to complete a lab activity with a partner.
2. Students will be able to analyze the results of the lab activity in a post-lab exercise to elucidate the characteristics of their offspring (genotype and phenotype, probabilities).

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## Materials

Science Notebooks

Science books

Baby Lab Sheets

Pennies

Colored Paper cards (Blue and Red)

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## Procedures/Strategy

1. Students will enter the classroom and take down the I can statements in their notebooks. Teacher will go over the statements as objectives of the day, preparing the students for the busy lab day.
2. Activation of prior knowledge (Engage): Think/Pair/Share 3 mins, 2 min, 1 min.
  - In your input: Describe the difference between the following pairs of words
    - Dominant v. Recessive
    - Heterozygous v. Homozygous
    - Phenotype v. Genotype
  - Pair with your partner to discuss answers.

- Share out to the class.
  - Take this time to clarify any misconceptions/ reiterate details.
3. Explore: Lab activity
    - Baby Lab!
    - Directions given in direct instructions
      - More work up front means less confusion later–be explicit for students!
    - Materials at the front of the room
  4. Explain: Follow up post lab sheet
    - Students to complete the post lab independently or with their partner. To be discussed next class or at the end of class pending time.
  5. Elaborate: Grand-baby lab Wednesday Feb. 19
  6. Evaluate: Post-lab and lab write up.

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### Content Vocabulary

Genetics	Purebred	Trait
Dominant Allele	Hybrid	Allele
Recessive Allele	Gene	
Heredity	Fertilization	

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### Evaluation

1. Formative
  - Discussion (observe/listen), Think/Pair/Share Feedback, Post Lab
2. Summative
  - N/A

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### Extensions/Next Steps

- Individual attention to students who are struggling with punnett squares. Pull students during study hall if necessary.
- Next Lesson: Grand-baby lab
- Homework: Lesson 3 Text boxes and vocabulary.