

# Thursday, February 20, 2014

Unit: Genetics

Lesson 24

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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).
3. Students will be able to define probability and its relationship to genetics.

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## Materials

Science Notebooks

Science books

SmileyFace Lab Sheets

Colored Pencils

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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): Consider yesterday lab.
  - Talk with a partner about the characters your grandbaby had
    - Which characteristics were homozygous?
    - Heterozygous?
    - Which characters were similar to the parents?
3. Explore: Smiley Face 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: Create your Smiley Face
  - Students use the colored paper, colored pencils, etc. to create their smiley face.

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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: Smiley Lab/ Reading continued
- Homework: Lesson 3 Text boxes and vocabulary.