**Lesson Title: Mendelian Genetics**

**Unit: 4**

TEKS: 130.7 (c) (7) a,e,f

OBJECTIVES

The student shall be able to:

1. Explain Gregor Mendel’s laws of inheritance
2. Discuss the difference between genotypes and phenotypes
3. Label the three types of genotypes
4. Draw and label a Punnett square
5. Predict outcomes of a Punnett square

TEACHING MATERIALS, TOOLS, AND EQUIPMENT

PPT: Mendel’s Law of Inheritance

HO: Phenotypes and Genotypes Activity.

TEACHING PROCEDURE

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| Interest Approach/Anticipatory Set | Teacher Notes |
| A lecture of the terms and ideas:* Mendel’s laws of inheritance
* Genotypes
* Phenotypes

Will allow students to understand how these terms are applied and allow a more in depth knowledge and process involved in this lesson. | Lecture only lesson with a review / homework worksheet to be completed upon finishing of this lesson. |

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| --- | --- |
| Teaching Plan and Strategy / Presentation of New Material | Teacher Notes |
| Day 1: Objective1:* Understand Gregor Mendel’s laws of inheritance

Discuss Mendel’s beginning’sMendel’s experimentThe terminology Mendel used.Objective 2:* Discuss the difference between genotypes and phenotypes

Define and discuss the two typesDominant and recessive genes Objective 3:* Label the three types of genotypes

homozygous dominant, heterozygous, homozygous recessiveObjective4:* Draw and label a punnett square

Have a lecture over it then have the students do it individually Objective 5:* Predict outcomes of a punnett square
 | PowerPoint |

ENGAGEMENT

Tooth pick fish lab activity. Teacher should come prepared to class with colored tooth picks and have corresponding worksheet printed out.

EVALUATION

Tooth pick fish lab activity will assess their understanding of genetics.

ADDITIONAL MATERIALS

Computer, projector, projector screen, notes, worksheets, colored pencils, markers, or crayons.

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