**Directions: Complete the following tasks to create a brochure to review Genetics**

**Page 1 (Inside the cover):**

Create a T-chart with the vocabulary terms on one side and the definitions on the other. The terms are below:

* Heredity
* Trait
* Gene
* Genotype
* Phenotype
* Dominant
* Recessive
* Allele
* Homozygous
* Heterozygous
* Probability

**Page 2: Mendelian Genetics**

* Include two complete sentences about Gregor Mendel and what he discovered.
* Define the following
	+ Law of Dominance
	+ Law of Independent Assortment
	+ Law of Segregation
* Create a T-chart. Label one side “heterozygous” and label one side homozygous. Then make up four examples of each (use which ever letters you want)
	+ Put a \* next to the genotypes that are “purebred”
	+ Put a + next to the genotypes that are “hybrid”

**Page 3: Punnett Square Practice**

Copy the table below and then indicate the phenotype for the (a)- (e) below



(a) LL

(b) Yy

(c) ss

(d) RR

(e) ll

Create a Punnett square to show the cross between a heterozygous Squarepants and a Roundpants, and then answer the questions.



a. What is the ratio of Squarepants to Roundpants?

 \_\_\_\_\_\_\_ Squarepants : \_\_\_\_\_\_\_\_ Roundpants

1. What is the genotype of the Squarepants children? \_\_\_\_\_\_\_\_\_
2. What is the genotype of the Roundpants children? \_\_\_\_\_\_\_\_\_

**Pages 4 – 6 (on the back): Non-Mendelian Traits**

Use the notes and/or the internet to complete the following:

* Explain and give an example of Incomplete Dominance
* Explain and give an example of Codominance
* Explain and give an example of polygenic inheritance
* Explain and give an example of a sex-linked trait