**I. Write objectives for section 10-2 from the essential questions on page 277**

 A.

 B.

 C.

**Biology Section 10-2 part 1: The Origin of Genetics**

**II. CHARACTERISTICS \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ON IN FAMILIES**

 A. D.

 B. E.

 C. F.

III. **INHERITED CHARACTERISTICS ALSO INFLUENCED BY \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ OR ENVIRONMENT**

 A. D.

 B. E.

 C. F.

**IV. *HEREDITY*: PASSING OF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ FROM PARENTS TO \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 A. In \_\_\_\_\_\_\_\_\_\_\_, Gregor \_\_\_\_\_\_\_\_\_\_\_\_\_\_ performed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-pollination in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plants

 1. Austrian \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 2. Known as “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”

 a. Science of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 B. Mendel followed various \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in \_\_\_\_\_\_\_\_\_ plants *(Pisum sativum*) he bred

 1. Several characters exist in \_\_\_\_\_\_\_\_\_\_ clearly \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ forms (no intermediate forms)

 2. Male ( \_\_\_\_\_\_\_\_\_\_) and female (\_\_\_\_\_\_\_\_\_) reproductive parts are \_\_\_\_\_\_\_\_ within the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ flower (controls \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

 3. Pea is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 4. Grows \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 5. Matures \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 6. Produces many \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 C. Mendel studied \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 different traits

**V. MENDEL’S EXPERIMENT**

 A. ***\_\_\_\_\_\_\_\_\_\_\_\_- pollinated*** for several

 generations to ensure ***\_\_\_\_\_\_\_\_\_\_\_\_-breeding***

for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ particular character

1. Yellow peas only produce \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 pea seed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ two individuals crossed called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - parental

 B. Cross-pollinated \_\_\_\_\_\_\_\_ generation plants with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ traits

 1. Yellow x (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ seeds

 2. Offspring = \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ generation (***F1 generation***)

 3. RECORDED number of \_\_\_\_\_\_\_\_\_\_ plants expressing each \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 C. F1 generation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- pollinated

1. Offspring of \_\_\_\_\_\_\_\_\_\_ generation ***= second \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ generation*** or F2 generation

 2. Each F2 plant \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 D. Overall Results

 1. F1 generation showed only \_\_\_\_\_\_\_\_\_\_\_\_\_\_ form of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (yellow), contrasting trait (green) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!

 2. During F2 generation, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ trait reappeared in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plants

**VI. REVIEW OF 10-2 PART 1**

 A. Mendel known as “Father of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” by his study of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 B. Pea plant \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to breed, therefore makes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ subject for study

 C. Although he made \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ discoveries in world of genetics, his work went \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for generations!

**Biology Section 10-2 part 2: Mendel’s Theory and Terms**

**I. MOST THOUGHT \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ WERE A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ OF PARENT’S TRAITS**

 A. Mendel’s results did \_\_\_\_\_\_\_\_\_\_\_\_\_ support \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 1. tall plants + short plants = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 B. For each \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ character, an individual has \_\_\_\_\_\_\_\_\_\_\_\_ copies of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - one from each \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 C. ***Alleles*** are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ versions of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gene

1. Each can be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on

D. Two different \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occur together

 1***. Dominant*** trait is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 2***. Recessive*** trait is \_\_\_\_\_\_\_\_\_\_\_\_\_ expressed when \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ form is present

**II. MENDEL’S FINDINGS IN \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TERMS**

 A. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ represent alleles

 1. Dominant alleles use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ letters (often the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ letter of character)

 2. Recessive alleles use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ letters

 3. For example

B. Organism with \_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ alleles for a particular trait is ***homozygous***

 1. For example, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (homozygous \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) or \_\_\_\_\_\_\_\_\_\_\_\_\_\_ (homozygous \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

 C. Organism with \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ alleles for a particular trait is ***heterozygous***

 1. Also called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 2. For example, \_\_\_\_\_\_\_\_\_\_\_\_\_

 D. Organism’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pairs are called its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 1. Freckles is dominant

 a. Genotype can be either \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_

 E. Physical appearance or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ expression of allele pair is its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 1. Having \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is her phenotype

 F. Mendel’s ***Law of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

 1. Two \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for each trait \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ during \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 2. During fertilization, \_\_\_\_\_\_\_\_\_\_\_\_ alleles or that trait \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 3. Heterozygous organisms called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**Biology Section 10-2 part 3: Genetic Problems**

**I. MONOHYBRID CROSS**

 A. Cross that involves \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ trait

 B. Notice the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ allele is always written \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 C. ***Law of Independent \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ distribution of alleles occurs during \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ formation

 2. Genes on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ chromosomes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ independently during \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 3. Each allele combination is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ likely to occur

 D. ***Punnett Square***

 1. Diagram that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ all \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ outcomes of genetic crosses

 2. Early 1900’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – Reginald \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**II. MONOHYBRID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ EXAMPLE**

 A. A homozygous tall pea plant is crossed (x) with a homozygous short pea

 1. Assign \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for traits

 2. Determine parents’ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 3. Write possible \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of one parent across \_\_\_\_\_\_\_\_\_\_\_\_ and one on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 4. Fill in each box of Punnett square (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ letter first)

 5. Genotype:

 6. Phenotype:

|  |  |
| --- | --- |
|  |  |
|  |  |

B. A heterozygous dimpled female marries a heterozygous male. What are the possible outcomes of their children?

 1.

 2.

 3. Genotypic ratio

 4. Phenotypic ratio

|  |  |
| --- | --- |
|  |  |
|  |  |

**III. DIHYBRID CROSS**

 A. Simultaneous inheritance of \_\_\_\_\_\_\_\_\_\_\_\_ contrasting traits

 B. Four types of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from male gametes and four from \_\_\_\_\_\_\_\_\_\_\_\_\_\_ gametes can be produced

 C. Two pea plants heterozygous for seed shape AND seed color are crossed

 1.

 2. Parent’s genotypes

 3. Possible gametes??

 a.

 b. These go along \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of square

 4. Phenotypic ratio:

 5. Typical dihybrid cross ratio: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**IV. WHY USE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_SQUARES?**

 A. Improve \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 B. Improve \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ animals

 C. Determine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for genetic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in infants

 D. Allows to predict the expected \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of genotypes of phenotypes

**V. *PROBABILITY* IS LIKELIHOOD THAT A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ EVENT WILL OCCUR**

 A. Expressed in \_\_\_\_\_\_\_\_\_\_\_\_\_\_, decimals, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or percentages

 B. Probability = # of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ kind of possible outcomes Total # of \_\_\_\_\_\_\_\_\_\_\_\_\_ possible outcomes

 c. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ parents must be considered when \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ probability

 D. To find probability, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ separate probabilities of \_\_\_\_\_\_\_\_\_\_ events

**Biology Section 10-3: Gene Linkage and Polyploidy**

**I. WRITE SECTION OBJECTIVES FOR 10-3 USING ESSENTIAL QUESTIONS ON PAGE 283.**

 A.

 B.

 C.

**II. *GENETIC RECOMBINATION***

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ combination of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ produced by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ over and independent assortment

1. Due to independent \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can be calculated using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 a. *n* = number of chromosome \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b. Humans have \_\_\_\_\_\_\_ pairs, therefore \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ~64 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ possibilities

 c. Number does\_\_\_\_\_\_\_\_\_\_\_\_\_\_ include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



***III. GENE LINKAGE***

1. Genes that are located \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to each other on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ chromosome ***can*** be

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Usually travel \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ during meiosis
2. Closer genes are more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_for linkage
3. Exception to Mendel’s law of independent \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ genes usually do \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ segregate independently
4. Formation of chromosome \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Shows \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and represents relative \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of genes on a chromosome

**IV*. POLYPLOIDY***

 A. Occurrence of \_\_\_\_\_\_\_\_\_\_\_\_\_ or more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sets of \_\_\_\_\_\_\_\_\_\_ chromosomes in an organism

 B. Triploid organism (\_\_\_\_\_\_\_\_\_\_\_\_) has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_complete sets of chromosomes

 C. Polyploid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_usually have more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ traits such as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# A. F2 generation B. dominant C. Recessive

F. Homozygous G. Heterozygous H. Gregor Mendel

I. P generation J. hybrid K. Reginald Punnett

M. ♂ N. ♀

\_\_\_\_\_\_1. Another term for heterozygous

\_\_\_\_\_\_2. Offspring of the first filial generation

\_\_\_\_\_\_3. For example TT or tt

\_\_\_\_\_\_4. Symbol for male

\_\_\_\_\_\_5. Monk who studied pea plants and took detailed data

\_\_\_\_\_\_6. Trait that is expressed ONLY when it is paired with itself

\_\_\_\_\_\_7. Symbol for female

\_\_\_\_\_\_8. First two individuals that are crossed are known as this

\_\_\_\_\_\_9. Trait that is expressed when recessive form is present

\_\_\_\_\_10. For example Tt

\_\_\_\_\_11. Invented diagram that predicts all possible outcomes of genetic crosses

A. Punnett Square B. Phenotype C. Genotype

 D. Monohybrid cross E. Ratio F. Heredity G. F1 generation H. Law of Segregation I. Genetics

J. Law of independent assortment K. Dihybrid cross L. Allele

M. True breeding

\_\_\_\_\_12. Offspring of the parental generation

\_\_\_\_\_13. States that two alleles for a character separate when gametes are formed

\_\_\_\_\_14. Cross that involves ONE pair of contrasting traits

\_\_\_\_\_15. A comparison of two or more numbers

\_\_\_\_\_16. For example: she has blue eyes and blonde hair

\_\_\_\_\_17. Plants that have self-pollinated for several generations for one particular character

\_\_\_\_\_18. Branch of biology that studies heredity

\_\_\_\_\_19. Alternate versions of genes

\_\_\_\_\_20. Cross involving TWO contrasting traits

\_\_\_\_\_21. Passing of characters from parents to offspring

\_\_\_\_\_22. For example: she has Bb alleles

\_\_\_\_\_23. Diagram that predicts all possible outcomes of genetic crosses

\_\_\_\_\_24. States that alleles of different genes separate independently of one another during gamete formation