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| **Word** | **Definition** | **Word Part** | **Visual/Mnemonic**  **Related Words** |
| **2. allele** | One or more alternate forms of a gene  Example: P = Dominant (purple); p = recessive (white) |  |  |
| **5. chromosome** | Compact structure of tightly coiled DNA within the nucleus containing the genetic information that is passed from one generation of cells to the next.  Humans have 46 chromosomes; 23 pairs | khrōma = color  sōma = body  (because chromosomes readily take up dye) |  |
| **6. clone** | Genetically identical organism: a plant, animal, or other organism that is genetically identical to its parent | *Klon* = a twig |  |
| **7. cloning** | The creation of an organism that is an exact genetic copy of another |  |  |
| **8. codominant** | Describes genes that each have equal effect in making the character they control appear in offspring. The genes for A and B blood groups are codominant and give rise to the AB blood group if they are both inherited | *Co =* with, together  dominari = be lord, rule |  |
| **10. crossbreeding** | To breed new strains of plants or animals from genetically different individuals.  To create a hybrid | kross = both  brod = fetus, hatching |  |
| **13. diploid** | Term used to refer to a cell that contains both sets of homologous chromosomes | *di =* two |  |
| **14. DNA**  **Deoxyribose Nucleic Acid** | A nucleic acid molecule in the form double helix that is the major component of chromosomes and carries genetic information | *de =* away from, down  *oxy =* oxygen  *ribose =* a sugar  *nucleic acid =* chain of nucleotides |  |
| **15. dominant** | A trait that will appear in the offspring if one of the parents contributes it | dominari = be lord, rule | **pe03901_** |
| **16. fertilization** | Process in sexual reproduction in which the male and female gametes join to form a zygote | *fertilis =*fruitful  *-ion* = act or condition of |  |
| **19. gene** | Sequence of DNA that codes for a protein and thus determines a trait | *genos =* offspring, birth  *genesis* = orign |  |
| **20. genetic engineering** | Process of making changes in the DNA code of living organisms.  Examples: cloning, genetic recombination, gene splicing | *genesis* – origin  ingenium - talent, clever device |  |
| **21. genotype** | Genetic make up of an organism  Example: DD – homozygous dominant genotype;  Dd – heterozygous genotype; dd – homozygous recessive genotype | *genesis* = origin  *type* = kind |  |
| **23. haploid** | Refers to a cell that has only a single set of chromosomes and therefore only a single set of genes. Gametes are haploid | *haplous* = single |  |
| **24. heterozygous** | Refers to an organism that has two different alleles for the same trait.  Example: Aa | *hetero =* different  *zygo =* to yoke/bring together |  |
| **25. homozygous** | Refers to an organism that has two identical alleles for a particular trait.  Example: AA or aa | *homo =* same  *zygo =* to yoke/bring together |  |
| **26. hybrid** | The offspring produced by crossing two individuals with different traits | Hybrida = offspring of mixed parentage |  |
| **30. mutation** | Change in a DNA sequence that affects genetic information. Leads to genetic variation. | mutare = to change  *-ion* = act or condition of |  |
| **31. nucleotide** | Monomer of a nucleic acid. Composed of a sugar, a phosphate and a base (ACTG) | *nucleo* = having to do with the nucleus |  |
| **32. phenotype** | Physical characteristics of an organism | pheno = to appear  *type* = kind |  |
| **34. Punnett square** | Diagram showing the possible gene combinations of a genetic cross |  |  |
| **35. ratio** | Proportional relationship of two numbers or things being measured | *ration* = relation, reason | 3:1 Ratio of dominant (purple) to recessive (white) phenotypes |
| **37. recessive** | Describes an allele that is not expressed in heterozygous individuals. Must have two recessive alleles in order for the gene to be expressed | *re =* back  *cess = go, yield, move* |  |
| **39. sex-linked gene** | Gene located on the X chromosome. Males tend to inherit sex-linked traits, such as color blindness, more often than females because they only have one X chromosome |  |  |