**Unit 7 Heredity and Genetics Vocabulary**

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| **Genetics** | The study of heredity |
| **Traits** | A characteristic that an organism can pass on to its offspring through its genes. |
| **Gene**  Image result for gene | A segment of DNA on a chromosome that codes for a specific trait |
| **Dominant trait**  T | the trait observed when at least one dominant allele for a characteristic is inherited – ex CAPITAL LETTER |
| **Recessive trait**  t | a trait that is apparent only when two recessive alleles for the same characteristic are inherited –ex. Lower case letter |
| **Mendel** | The father of genetics, Augustinian monk and botanist who experimented with the breeding of garden peas. |
| **Homozygous (pure)**  **TT** | Having two identical alleles for a trait |
| **Heterozygous (hybrid)**  **Tt** | Having two different alleles for a trait |
| **Incomplete Dominance**  Related image | occurs when neither allele is dominant over the other and the phenotype of the offspring is a blend of the dominant and recessive trait EX: pink |
| **DNA**  C:\Users\Carissa\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\1Z1SRP6E\MC900436816[1].wmf | A molecule containing the genetic information that makes up the chromosomes. Double Helix shape |
| **Punnett Square**  [http://t2.gstatic.com/images?q=tbn:ANd9GcSAUvZHG6TzbXeKSX-xuyteicomg7yVx8vQ47rMHeW8UuVrYC1euHdwWw](http://www.google.com/imgres?imgurl=http://www.hobart.k12.in.us/jkousen/Biology/psques3b.jpg&imgrefurl=http://www.hobart.k12.in.us/jkousen/Biology/psquprac.htm&usg=__MoP1fjPITbGy4i8C57yqhLSS3Jw=&h=220&w=235&sz=56&hl=en&start=4&zoom=1&um=1&itbs=1&tbnid=D2AiPeezZdauOM:&tbnh=102&tbnw=109&prev=/images?q=punnett+square&um=1&hl=en&rlz=1T4DKUS_enUS295US295&tbm=isch&ei=dLKhTYLfHYmU0QGe_ICIBQ) | A diagram for predicting the alleles of offspring from a cross between individuals of known genetic makeup. |
| **Genotype** | An organism’s genetic makeup, or allele combinations. |
| **Phenotype** | An organism’s physical appearance, or visible traits. |
| **Sickle Cell Anemia**  **[http://t1.gstatic.com/images?q=tbn:ANd9GcTp_QcHka0dFj7qeVwc71mPgK9nG_aViCjFkD2IoVilGrEcXVgioAXfRbo](http://www.google.com/imgres?imgurl=http://www.aurorahealthcare.org/yourhealth/healthgate/images/si55551158.jpg&imgrefurl=http://www.aurorahealthcare.org/yourhealth/healthgate/getcontent.asp?URLhealthgate=11561.html&usg=__AYu0LMMehEp4KNNMf54w9wfn1Q4=&h=255&w=391&sz=15&hl=en&start=8&zoom=1&um=1&itbs=1&tbnid=syx5O-AAHBQ3AM:&tbnh=80&tbnw=123&prev=/images?q=sickle+cell+anemia&um=1&hl=en&sa=N&rlz=1T4DKUS_enUS295US295&tbm=isch&ei=YrWhTffcHKby0gGriuXMDQ)** | Condition where red blood cells assume an abnormal sickle shape |
| **Pedigree Chart**  [http://t3.gstatic.com/images?q=tbn:ANd9GcR7RSXqagRmO7O2hbFCkGNeMJcGw1joHbazvUsHi94HLGf8SVM6XQTortU](http://www.google.com/imgres?imgurl=http://www.nslc.wustl.edu/sicklecell/images/family.gif&imgrefurl=http://www.nslc.wustl.edu/sicklecell/part1/background.html&usg=__oPN-wFoW-QkRNWScfHAqS1fSJfw=&h=343&w=447&sz=12&hl=en&start=15&zoom=1&um=1&itbs=1&tbnid=4fi7xHTUe_RUHM:&tbnh=97&tbnw=127&prev=/images?q=pedigree+chart&um=1&hl=en&rlz=1T4DKUS_enUS295US295&tbm=isch&ei=_LShTZzbBdC20QH3orCVBQ) | traces the inheritance of a particular trait through several generations |
| **Genetic counseling** | guidance for prospective parents on the likelihood of genetic disorders in their future children |
| **Chromosome**  **C:\Users\Carissa\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\1Z1SRP6E\MC900436816[1].wmf[http://t1.gstatic.com/images?q=tbn:ANd9GcSjmZEN3K3ETIeiKM7YSDaIE8FuY4ivSyd4IScIxdeob3wRw2is2kCdjxQ](http://www.google.com/imgres?imgurl=http://cmcweb.lr.k12.nj.us/webquest/sidelsky/chromosome.gif&imgrefurl=http://cmcweb.lr.k12.nj.us/webquest/sidelsky/genetherapy.htm&usg=__ulnCYoMYAVbxen-3fyEt_Azzbi4=&h=521&w=290&sz=39&hl=en&start=13&zoom=1&um=1&itbs=1&tbnid=zb_949XbAoLmBM:&tbnh=131&tbnw=73&prev=/images?q=chromosome&um=1&hl=en&rlz=1W1DKUS_en&tbm=isch&ei=Qa-hTfPWFYbe0gGI6KyABQ)** | A coiled structure in the nucleus that contains hereditary material. Genes are a specific location on this structure. |
| **Alleles**  Image result for allele | Different versions of the same gene |