Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **Trait Checklist: Do You Have the Following Traits?**

|  |  |  |  |
| --- | --- | --- | --- |
| **Trait** | **Example** | **Yes** | **No** |
| Attached Earlobe |  |  |  |
| Hitchhiker’s Thumb | http://30.media.tumblr.com/epGKGd8Feo1x07fzwBHMRVGwo1_400.png |  |  |
| Widow’s Peak | http://knowgenetics.org/wp-content/uploads/2013/01/WidowsPeak2.jpg |  |  |
| Freckles | https://asd-hs.wikispaces.com/file/view/freckles.jpg/328258520/644x359/freckles.jpg |  |  |
| Roll Tongue |  |  |  |
| Dimples |  |  |  |
| Right-handed | https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQk2WFQ8jPINNbK1QvVnHoISXKctCsQvh5o-o4x1mY6DnMNYA44oQ |  |  |
| Clasp Hands :Left over right thumb? | http://www.quirkology.com/USA/Images/test3_claspedhands.gif |  |  |
| Fold Arms:Left on top of right? | http://udel.edu/%7Emcdonald/mythpix/mytharms.jpg |  |  |
| Cleft Chin | https://asd-hs.wikispaces.com/file/view/chin.jpg/316691104/640x352/chin.jpg |  |  |

**GENETICS NOTES**

 : passing characteristics from parent to offspring

: branch of biology devoted to the study of heredity

 : segment of DNA or hereditary unit

The “Father of Genetics” was **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



**Mendel’s Theory of Heredity**

1. For every trait there are **\_\_\_\_\_\_\_** copies of the gene (one from each parent)
2. There are alternative versions of the gene (**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**)
3. When two different alleles are present, one is expressed (**\_\_\_\_\_\_\_\_\_\_\_\_**)while the other is not visible (**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**)

By looking at an individuals alleles, we can describe their

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**: genetic makeup

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**: what they look like

If two alleles code for the same characteristic they are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

TT = **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_dominant**

tt = **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ recessive**

If the alleles are different they are **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

Tt = heterozygous

**Practice: For each genotype below, indicate whether it is heterozygous (He) or homozygous (Ho).**

\_\_\_\_RR

\_\_\_\_Rr

\_\_\_\_TT

\_\_\_\_pp

 **Determine the phenotype for each genotype using the information provided**

Round head is dominant over oval head

RR \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Rr \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rr \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ll \_\_\_\_Hh

\_\_\_\_ss \_\_\_\_BB

\_\_\_\_Tt \_\_\_\_Nn

\_\_\_\_aa \_\_\_\_Ll