

Essential Question: How do living things inherit their genetic characteristics?

Activity 7: Investigating Human Traits

Purpose: I am able to describe how offspring from sexual reproduction differ from the parents because each receives 1/2 of their genetic information from each parent.

Instructions: Complete Data Table 1 & have a peer double check the data. When told, complete Data Table 2 & have another peer check the data. Then wait for instructions on how to use this data to complete Figure 1.

Data Table 1 – Your Personal Traits				Data Table 2 – Dropping your Genes!			
Your Trait	Genotype	Phenotype	Homozygous Dominant (HD) Heterozygous (H) Homozygous Recessive (HR)	Allele you give to mating	Allele your mate gives to mating	Your Baby's Genotype	Your Baby's Phenotype
1. Gender Male (XY) Female (XX)							
2. Face Shape Round (GG, Gg) Square (gg)							
3. Chin Shape Round (RR, Rr) Square (rr)							
4. Cleft Chin Present (OO, Oo) Absent (oo)							
5. Hair Type Curly (CC) Wavy (Cc) Straight (cc)							
6. Widow's Peak Present (WW, Ww) Absent (ww)							
7. Color of Eyebrows Very Dark (HH) Medium (Hh) Light (hh)							
8. Eyebrow Thickness Bushy (DD, Dd) Fine (dd)							
9. Eyebrow Placement Not connected (NN, Nn) Connected (nn)							
10. Eye Color Dark (BGH) color (BB, Bb) Light (Blue) color (bb)							
11. Eye distance apart Close Together (EE) Average (Ee) Far Apart (ee)							
12. Eye Size Large (LL) Medium (Ll) Small (ll)							
13. Eye Shape Almond (AA, Aa) Round (aa)							

Blue-eyed people likely have one common ancestor, who had a genetic mutation 6 - 10,000 years ago!

Student Review: 1-Below Standard, 2-Approaching Standard, 3-Standard, 4-Above Standard
 Use the scale to evaluate completeness & correctness of the job. Put score, Initial & date in boxes.

Score

Initial/Date

Data Table One – Your Personal Traits				Data Table Two – Dropping your Genes!			
Your Trait	Phenotype	Genotype	Homozygous Dominant (HD) Heterozygous (H) Homozygous Recessive (HR)	Allele you give to mating	Allele your mate gives to mating	Your Baby's Genotype	Your Baby's Phenotype
14. Eye Slantedness Horizontal (SS, Ss) Upward Slant (ss)							
15. Eyelashes Long (YY, Yy) Short (yy)							
16. Mouth Size Large (MM) Medium (Mm) Small (mm)							
17. Tongue rolling Roll (FF, Ff) Unable to roll (ff)							
18. Hitch Hiker's Thumb Straight (JJ, Jj) Bent (jj)							
19. Bent Little Finger Bent (PP, Pp) Unbent (pp)							
20. Thumb Crossing Left over right (TT, Tt) Right over left (tt)							
21. Nostril Shape Rounded (UU, Uu) Pointed (uu)							
22. Earlobe Attachment Free (Ii, ii) Attached (ii)							
23. Freckles Present (KK, Kk) Absent (kk)							
24. Mid Digital Hair Present (VV, Vv) Absent (vv)							
25. Short Big Toe Short (ZZ, Zz) Not Short (zz)							
26. Sodium Benzoate Salt/Bitter (S1S1) Sweet (S1s1) None (s1s1)							
27. PTC Tasting Bitter (P1P1, P1p1) None (p1p1)							

Observer _____ Recorder _____