

Family Pedigree With Traits

Purpose: To examine inheritance by tracing family traits

Procedures: Using the family genealogy chart that you created in the Family Pedigree assignment, add traits for each member of your family. You **MUST** choose at least 5 traits, but you may choose up to 10 for **extra credit**.

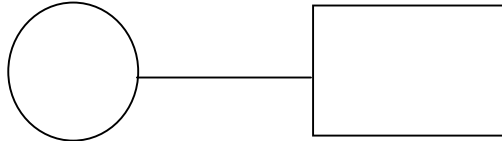
Family Pedigree:

Remember the following rules:

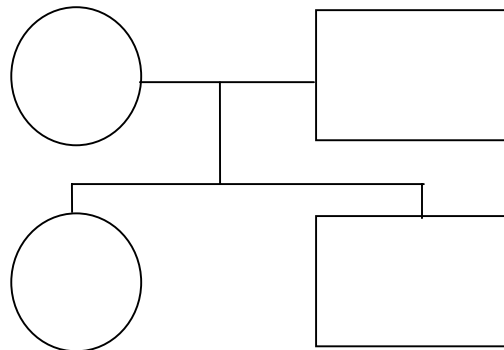
1. The oldest member of your family on the chart will be at the top.
2. Female family members' names will be in a rectangle. Keep all rectangular boxes the same size.
3. Male family members' names will be in a circle. Keep all circles the same size.
4. Family members of the same generation will lie on the same line, as in below:



5. A horizontal line will connect couples who have had children, as in below:



6. A vertical line will connect parents and offspring, as in below:



Note: In order to keep the task manageable, you may need to limit your focus to one side of your family. Clearly indicate and label the subject of the genealogy chart (themselves or another adult).

Marking family traits:

Every family has a set of traits that is peculiar to their family, such as large noses. From the table below, find at least five traits, but no more than ten, to trace on your family pedigree. Clearly indicate and label the traits that you are tracing. Use the letter below to indicate a particular allele, and upper case letters for the dominant allele, and lower case letters for the recessive allele. For example, for tongue roller, use the letter "T" for family member who can roll their tongue, and "t" for family members who cannot roll their tongue. As much as possible, use different letters.

Table of Traits:

- 1) Tongue Roll RR or Rr=tongue roller
rr=non roller
- 2) Widow's Peak / WW or Ww=widow's peak
ww=no widow's peak
- 3) Hitchhiker's Thumb/ TT or Tt for hitchhiker's thumb; tt = no hitchhiker's thumb
- 4) Ear Lobes/ EE or Ee for unattached ear lobes; ee for attached ear lobes
- 5) Hair Color / BB=black Bb=brown or red
bb=blonde
- 6) Blood Type / AA AB BB 00
- 7) Size of Nose/ LL_N=large; Ll_N=medium;
ll_N=small
- 8) Size of Ears/ LL_E=large Ll_E=medium
ll_E=small
- 9) Size of Eyes/ LL_Y=large Ll_Y=medium
ll_Y=small
- 10) Eyelashes/ LL_L=long Ll_L=long ll_L=short
- Note:** Use the subscript N for nose size, E for ear size, and Y for eye size, and L for eyelash length.
- 11) Shape of Lips/ TT=thick Tt=medium
tt--thin
- 12) Hair Texture/ HH=curly Hh=wavy
hh=straight
- 13) Spacing of Eyes/ WW=wide Ww--normal
ww=narrow
- 14) Baldness/ BB= normal Bb=normal
bb=bald
- 15) Face Shape/ RR=round Rr=round
rr=square
- 16) Nostril Hair/ NN=lots Nn=some nn=few
- 17) Eyebrows/ BB=bushy Bb=bushy bb=fine
- 18) Eyebrow Position/ NN=unconnected
Nn=unconnected nn=connected
- 19) Freckles/ FF=present Ff=present
ff=absent
- 20) Dimples/ DD=present Dd=present
dd=absent
- 21) Eye Shape/ AA=almond Aa=almond
aa=round
- 22) Eye Position/ SS=straight Ss=straight
ss=slanted up
- 23) Chin Cleft/ CC=absent Cc=absent
cc=present

It's always useful to also include some of the following information, if you have it.

- Place of birth/origin
- Date of birth
- Date of death (if applicable)
- Profession

Written Critique

Finally, write an analysis detailing the process of creating the chart. You should discuss successes and problems encountered in creating the chart as well as any surprises or discoveries made during the process. A paragraph or more should be devoted to analyzing the genetic traits of the relatives on the chart. What patterns related to genetics and inheritance do you see in your chart? Finally, what hypotheses or conclusions can you draw from examining your genealogical data?