

# Pedigrees

## What is a pedigree?

- ~ A pedigree is a record of an individual's ancestral history, showing inheritance patterns for a given trait or traits.
- ~ A diagram showing the transmission of a genetic trait, through successive generations.

## Rules:

- ~ Provide a legend for the symbolism used in the pedigree.
- ~ Roman Numerals are placed along the left (sometimes along the right) to indicate generations.
- ~ Squares are used to indicate males.
- ~ Circles are used to indicate females.
- ~ Shading in the circles and squares means that the individual(s) has/have the recessive trait being studied.
- ~ Individuals (children especially) are listed oldest to youngest from left to right.
- ~ Each generation must be numbered (again: use the Roman Numerals).
- ~ Each person is given a number.
- ~ When identifying a person call them by their generation number and person number (for example: II-2)
- ~ Show linkages with marriage lines and children lines.
- ~ Identify a specific individual being studied by placing a double square or circle.
- ~ Using and assigning genotypes with pedigrees:
  - Assign 2 recessive alleles below each shaded shape (circle or square).
  - Assign 1 dominant allele below each symbol that is left unshaded.
  - Determine the other allele for the dominant individuals by doing Punnett squares (determined by others on the pedigree.)
  - If you can not determine the second allele, label them for example: EE or Ee (show both possibilities).

Pedigree Example:

