

Genetic inheritance recall questions

1. Write down a meaning for three of these terms:
gamete - **sex cell**, chromosome - **long stands of DNA**, gene – **short strand of DNA coding for a protein**, allele – **two version of the same gene**, dominant – **allele for characteristic that is always shown**, recessive – **characteristic shown when two alleles are present**, homozygous – **two alleles the same**, heterozygous – **two alleles that are different**, genotype – **combination of alleles**, phenotype – **physical expression of genotype**.
2. Name two characteristics that are controlled by a single gene. **Fur colour in mice, red green colour blindness in humans.**
3. Cystic fibrosis is a recessive inherited illness. Write down:
letters to represent the dominant **F** and recessive **f** alleles
a heterozygous combination of these alleles **Ff**
the genotype that would result in cystic fibrosis **ff**
4. Draw some Punnett square diagrams for different phenotypes and write down the proportions of different phenotype outcomes. **Next slide blue diagram.**
5. Most characteristics are the result of **multiple** genes interacting.

1. Name one human inherited condition caused by a dominant allele.
Polydactyly (extra fingers and toes)
2. What are female and male sex chromosome pairs for humans. Female **XX**
Male **XY**
3. Draw a Punnett square diagram to show that equal numbers of female and male babies are born. **Below right**

