

Mandatory Key Area – Genetic Information

1. I can state how certain characteristics are passed on from parents to offspring.
2. I can give examples in both plants and animals of characteristics which are passed on from the parents.
3. I can state what is meant by **phenotype**.
4. I can identify examples of different phenotypes of the same characteristic.
5. I can identify examples of **true breeding**, and **dominant** and **recessive** characteristics.
6. I can identify generations as **P**, **F₁** or **F₂**
7. I can state that all F₁ individuals in a true breeding cross have the same phenotype.
8. I understand that in an experimental crosses, the parents are usually true breeding, and show different phenotypes of the same characteristic.
9. I can predict the proportions of the phenotypes of the F₂ offspring in a cross.
10. I can state the number of sets of chromosomes in body cells of an organism.
11. I can state that sex cells are called gametes.
12. I can state the number of sets of chromosomes in a gamete.
13. I can describe how fertilisation ensures the correct number of chromosomes for an organism.
14. I can state what chromosomes are made of.
15. I can state the number of genes which control each characteristic of an organism.
16. I can state where each one of a pair of genes comes from.
17. I understand how genes are carried from parents to offspring.
18. I can state the meaning of **genotype**.
19. I can state the meaning of **alleles**.
20. I can explain crosses in terms of the genotypes of the parents, gametes and offspring.
21. I understand how the sex of an individual is determined.
22. I understand how X and Y chromosomes are carried by sperm and eggs.