



Inheritance Key Terms

1 2 3 4 5

Diploid

_____ :

Gene

_____ :

Allele

_____ :

Genotype

_____ :

Phenotype

_____ :

Dominant Allele

_____ :
_____ :

Recessive Allele

_____ :
_____ :

Codominant Allele

_____ :
_____ :

Homozygous

_____ :

Heterozygous

_____ :

Locus

_____ :



Monohybrid
Inheritance

Monohybrid Inheritance

1 2 3 4 5

e.g.

Parent 1

Parent 2

①

②

F₁ Generation

Punnett Square

→

→

→

F₂ Generation

①

②

→

→



Gene Mutations

1 2 3 4 5

Gene
Mutation

_____ :

_____ :

_____ :

Substitution



Deletion

Mutations can cause a non-functional
protein



No change to primary structure





Mutation

Degenerate

Frame Shift

Affects of Mutations

1 2 3 4 5

Mutation

No change to amino acid sequence

change to a single amino acid

change to sequence of many amino acids



Cystic Fibrosis

1 2 3 4 5

_____ :

-
-
-
-
-
-
-

Gaseous Exchange System

-
-
-

Digestive System

-
-
-
-
-

Reproductive System

→ Men:

↳

→ Women:

↳



Genetic
Screening

Genetic Screening

1 2 3 4 5

_____:

1) Identify carriers of genetic disease

→

↳

e.g.

2) Pre-implantation Genetic Diagnosis ()

→

e.g.

3) Prenatal Testing

→

→

↳

→

→

→

↳

→

→

→



Social + Ethical Issues of Genetic Screening

1

2

3

4

5

① Identify Carriers of Genetic Disease

→

→

→

② Preimplantation Genetic Diagnosis (PGD)

→

e.g.

→

③ Prenatal Testing

→

→

→