

17. Inheritance

Starter Quiz · 课前小测

IGCSE Biology

Name: _____ Score: _____

1. A gene is:

- ☐ a section of DNA that codes for a protein
- ☐ a whole chromosome
- ☐ a type of cell
- ☐ a sugar

2. The shape of a DNA molecule is a:

- ☐ double helix
- ☐ single straight line
- ☐ circle
- ☐ square

3. Mitosis produces daughter cells that are:

- ☐ genetically identical to the parent
- ☐ all different
- ☐ gametes
- ☐ half the chromosome number

4. Meiosis produces how many cells from one parent cell?

- ☐ four
- ☐ two
- ☐ one
- ☐ eight

5. An allele is:

- ☐ a version of a gene
- ☐ a whole chromosome
- ☐ a protein
- ☐ a cell

6. How many chromosomes are in a human body cell?

7. How many chromosomes are in a human gamete?

8. Mitosis is used for: (Select all that apply.)

- ☐ growth
- ☐ repair of tissue
- ☐ asexual reproduction
- ☐ making gametes

Tick every correct option.

9. In a Bb x Bb cross, out of 4 offspring, how many show the recessive trait?

10. The order of bases in a gene determines the protein made.

- ☐ True ☐ False

IGCSE Biology

1. **a section of DNA that codes for a protein**

A gene codes for one protein.

2. **double helix**

DNA is a double helix — two twisted strands.

3. **genetically identical to the parent**

Mitosis makes identical copies.

4. **four**

Meiosis makes four gametes.

5. **a version of a gene**

Alleles are different versions of a gene.

6. **46**

Body cells have 46 chromosomes (23 pairs).

7. **23**

Gametes have half — 23 — so fertilisation restores 46.

8. **growth; repair of tissue; asexual reproduction**

Gametes are made by meiosis, not mitosis.

9. **1**

Only bb (1 in 4) shows the recessive trait.

10. **True**

Base order sets the amino acid order, hence the protein.