

National 5 Biology

Producing New Cells

1. Name the term used to describe a cell with a double set of chromosomes. (1)
2. Name the term used to describe a cell with a single set of chromosomes. (1)
3. What is the 'chromosome complement'? (1)
4. The information below shows the chromosome complement for different species. Using this information, construct a bar graph to show the chromosome complement for the species in the table.

Species	Chromosome Complement
Carp	104
Coyote	78
Red deer	68
Giraffe	62
Barley	14
Cabbage	18
Snail	24
Meerkat	36

5. Which cell structure controls all cell activities? (1)
6. Using simple diagrams outline the main stages of mitosis, with a brief description of what is happening at each stage. (4)
7. If a cell containing 32 chromosomes undergoes cell division twice, how many chromosomes will each of the 4 daughter cells have? (1)
8. What is meant by the term 'cell culture'? (1)
9. Write down 5 things that should be done when carrying out the growth of cell cultures. (5)

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10. Name 2 media used for culturing cells. (2)
11. If a bacterial cell can complete one cell division in 15 minutes, construct a table to show how many bacterial cells there would be after 2 hours. (2)
12. Show the results of your table in a line graph. (3)
- Total = 25**