LIFE SCIENCES - QUICK FIX - PAPER TWO

MEIOSIS

STRUCTURE AND ARRANGEMENT OF CHROMOSOMES IN A NORMAL HUMAN KARYOTYPE.

- Each chromosome comprises two chromatids
- held together by a centromere
- There are 23 pairs√/46 chromosomes in
- human somatic cells//body cells
- which are arranged into homologous pairs√
- that are similar in length
- carry genes for the same characteristics√
- have the same centromere position√
- Each somatic cell has 22 pairs/44 autosomes√and
- a pair/2 gonosomes√/sex chromosomes/X and Y chromosomes
- Autosomes are arranged in pairs from largest to smallest

 in a karyotype
- Males have XY chromosomes√
- Females have XX chromosomes
- The X chromosome is larger than the Y chromosome

BEHAVIOUR OF THE CHROMOSOMES DURING THE DIFFERENT PHASES OF MEIOSIS I.

- During prophase✓ I
- chromosomes pair vup/homologous pairs /bivalents form
- Crossing overviexchange of genetic material occurs
- between chromatids //adjacent chromosome pairs
- During metaphase

 I of meiosis
- homologous chromosomes //chromosome pairs are arranged
- at the equatory of the cell
- in a random√ way
- with the chromosome attached to the spindle fibre-
- During anaphase ✓ I.
- chromosome pairs separate //chromosomes move to opposite poles
- During telophase
- the chromosomes reach the poles of the cell

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