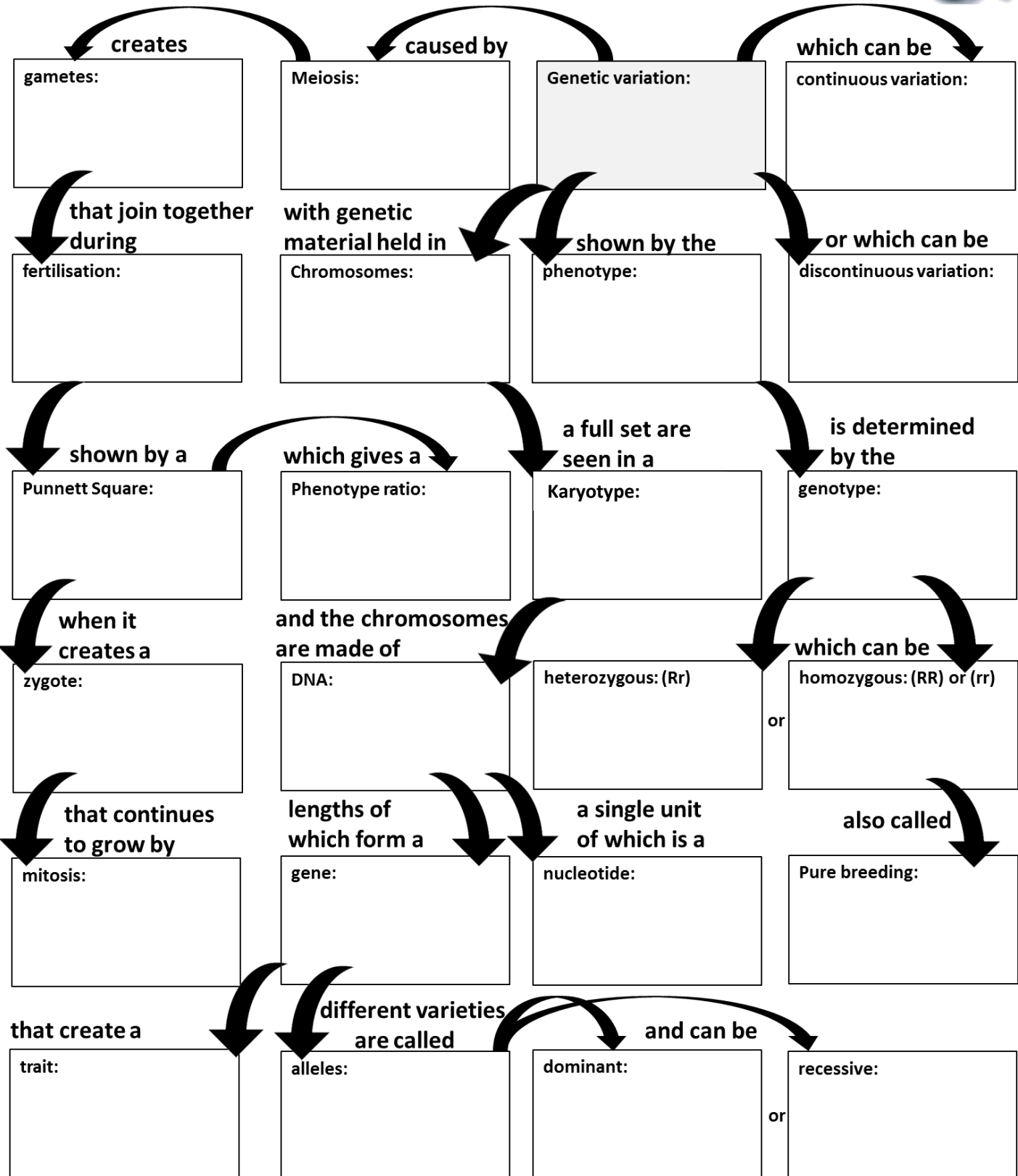
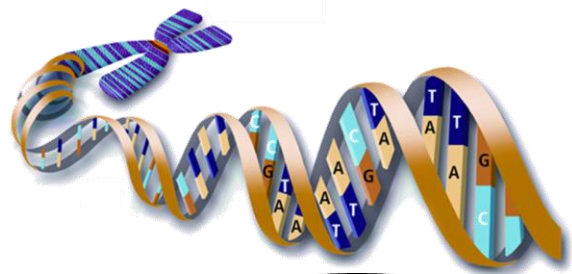
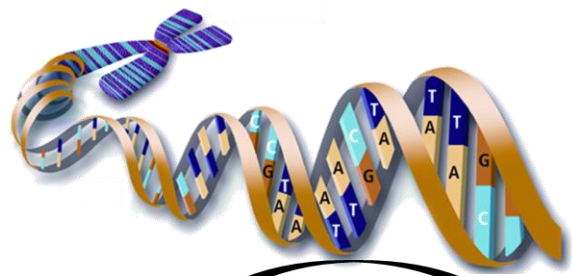


Junior Science Genetic Definitions



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creates

gametes: sex cell eg sperm or egg. Only contains half the DNA (Chromosomes) of normal body cells.

caused by

Meiosis: The process of cell division for the production of gametes.

which can be

continuous variation: Variation that shows a range of possibilities e.g. skin colour, height and weight.

that join together during

fertilisation: when a male and female gamete fuse to form a diploid.

with genetic material held in

Chromosomes: a package of DNA containing many genes

shown by the

phenotype: the physical characteristic expressed

or which can be

discontinuous variation: Variation that is "either/or" eg blood groups or ability to roll tongue.

shown by a

Punnett Square: the grid of squares that may be drawn to show the range of combinations of genes that may occur.

which gives a

Phenotype ratio: ratio of phenotypes e.g. 3 brown hair: 1 blond hair. (a prediction of the phenotypes)

a full set are seen in a

Karyotype: A photograph or diagram of the chromosomes of a cell organised by number and size.

is determined by the

genotype: the allele combination present

when it creates a

zygote: The cell formed when a sperm cell fuses with an egg cell.

and the chromosomes are made of

DNA: Deoxyribonucleic acid – a double helix shaped molecule that carries a genetic code.

heterozygous: (Rr)
2 different alleles are present

which can be

homozygous: (RR) or (rr)
2 copies of the same allele are present

that continues to grow by

mitosis: cell division producing body cells for growth and repair.

lengths of which form a

gene: a section of DNA on a chromosome that codes for a particular characteristic (e.g. eye colour)

a single unit of which is a

nucleotide: consisting of a phosphate and a sugar connected to a base. The bases are A joined to T and C joined to G

also called

Pure breeding: a pure breeding individual has 2 copies of the same allele (homozygous)

that create a

trait: Another word for a characteristic, e.g. brown hair

different varieties are called

alleles: a specific version of a gene (e.g. blue eye colour)

and can be

dominant: only one dominant allele present for that characteristic to be expressed so if present then it is expressed.

or

recessive: two recessive alleles must be present for that characteristic to be expressed

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