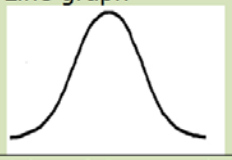
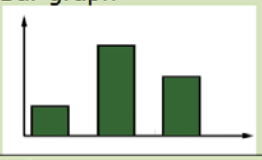
Science Knowledge Organiser

Glossopdale School

Y7 Genes: Variation

Variation helps to reduce extinctions.

Key words	
Continuous variation	Where differences between living things can have any numerical value.
Discontinuous variation	Where differences between living things can only be grouped into categories.
Environmental variation	Influenced by living conditions, lifestyle and surroundings.
Genetic variation	Passed on in genes from parent to offspring.
Inheritance	Differences between organisms passed to organisms by their parents in reproduction.
Offspring	A persons child or children.
Species	A group of living things that have more in common with each other than with other groups.
Variation	The differences within and between species

	Continuous variation	**Discontinuous variation**
Properties	- No distinct categories - No limit on the value - Tends to be quantitative	- Distinct categories. - No in-between categories - Tends to be qualitative
Examples	• height • weight • heart rate • finger length • leaf length	• tongue rolling • finger prints • eye colour • blood groups
Representation	Line graph 	Bar graph 
Controlled by	A lot of Gene and environment → range of phenotypes between 2 extremes, e.g. height in humans.	A few genes → limited number of phenotypes with no intermediates e.g. A, B, AB and O blood groups in humans