* Genetics: The scientific study of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ Heredity: The passing of physical characteristics from parents to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
		- Traits: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
			* Ex.) eye color: blue, brown, green
			* Ex.) height: short, medium, tall
* Traits can be passed from generation to generation through 2 primary methods ….
	+ ­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ Austrian priest/monk
	+ born July 22, 1822; died January 6, 1884
	+ Known as “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”
	+ In his job as the monastery \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Mendel worked extensively with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to determine how traits are passed from generation to generation.
* Mendel’s experiments
	+ Mendel \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pea plants by cross-pollinating the flowers of purebred pea plants.
		- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: the process by which the egg & sperm cell of an organism combine to form a new organism.
		- Pollination: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
		- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: the offspring of many generations with the same traits.
			* Ex.) Short parents always produce short offspring.
			* Ex.) Blue-eyed parents always produced blue-eyed offspring.
* Mendel’s Breeding Experiments
	+ Example 1:
	+ Example 2:
* Mendel concluded
	+ Mendel believed that individual factors or sets of genetic “information” must control the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of traits.
	+ The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_that control traits exist in pairs.
	+ Each parent (mother & father) contributes 1 of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ One factor in the pair can mask or hide the other factor.
		- Gene: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
			* Ex.) eye color, height, hair color, nose shape, etc.
		- Allele: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
			* Ex.) eye color: brown, blue, green
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		- The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ form of the gene that will always show
		- Uses a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ letter
			* Ex.) Seed shape: round (R)
			* Ex.) Seed color: yellow (Y)
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
		- The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ form of the gene that will only show up if there are 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ alleles t
		- Uses a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ case letter of the dominant allele for a trait.
			* Ex.) Seed shape: wrinkled (r)
			* Ex.) Seed color: green (y)
* Dominance versus Prevalence
	+ Just because a particular trait is dominant does not mean it is more prevalent.
		- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: majority; happens, takes place or is found most often.
			* Ex.) Seed color: Yellow is dominant; Green is prevalent
			* Ex.) Widow’s peak: Having one is dominant; Not having one is prevalent
	+ This is good because there are some \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_that are found on a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gene but they are less prevalent in society.