**Vocabulary: Temperature and Sex Determination**



**Vocabulary**

* Embryo – an organism in an early stage of development.
	+ In plants, embryos develop inside seeds.
	+ In invertebrates, fish, amphibians, birds, reptiles, and a few mammals, embryos develop inside eggs.
	+ In most mammals, embryos develop inside the mother’s body.
* Hypothesis – a tentative explanation that can be tested by doing experiments.
	+ Hypotheses often are written as if/then statements. For example “If fertilizer is added to the soil, then the plants will grow more quickly.”
* Mean – the sum of a set of numbers divided by the number of items in the set.
	+ The mean of a set of numbers is also known as the set’s *average*.
	+ For example, the mean of 2, 3, and 7 is 4. (2 + 3 + 7 = 12, 12 ÷ 3 = 4)
* Sex – a set of two or more categories used to identify an organism’s reproductive role.
	+ Most species that reproduce sexually have only two sexes: male and female.
		- Males typically produce small, motile gametes called spermatozoa.
		- Females typically produce larger, less mobile gametes called ova. When the ova are fertilized by the sperm cells, the female carries the developing offspring or eggs.
	+ A few species have more than two sexes. In fact, the slime mold *Physarum polycephalum* has more than 500 sexes!
* Sex chromosomes – two chromosomes that determine an individual’s sex.
	+ In humans and most other mammals, the two sex chromosomes are the X chromosome and the Y chromosome. Females have two X chromosomes (XX). Males have one X chromosome and one Y chromosome (XY).
	+ Not all animals have the same sex chromosomes as humans. For example, the sex chromosomes of birds and some lizards are the Z chromosome and W chromosome. Female birds are ZW, and male birds are ZZ.
	+ In some types of reptiles, sex is determined not by genetics but by environmental conditions as the eggs incubate. The mechanisms for this are not fully understood.
* Trial – a single time an experiment is conducted.