

Bio 3
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- Winning at the "Game of Biology"

- Live Forever

- 19-24 male - think they're invincible - will not live forever

* - DNA = Code

- 1/2 of your DNA passed on through offspring.

- Somatic Cells

- most cells in body

- 2 copies of each chromosome

- chromosome = gene chain

- Genes = you = your traits

- Gametes

- sperm + egg

- both only have '1' copy

- each gametes has 50% of your genotype.

- To win @ "Game of Bio"

* - must produce viable offspring

- viable = capable of reproducing

- Scientific Literacy

1.14

- Statistics can help us to make decisions.

- Variation exists

- Stats help us evaluate differences between treatment + control group.

- larger #'s of participants better

- Statistical Proof.

- high bar

- 95% not random

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- Causation or Correlation?

- biggest issue in science

- Just because things are correlated does not mean one caused the other.

- What is the Mechanism? / How does it happen?

- Pirates affect Global warming -

- Graphs can be a correlation, but not a cause

"Form of Biology"

- may be coincidences, but not a result of,

- unreliable w/o a mechanism

- what causes things to correlate?

- must be proved as a cause otherwise it is just a correlation - and not a causation

- Experimental test results can be used to revise hypothesis and explain observable world more accurately.

- scientific thinking helps us to understand when we should change our mind.

- Genomes

- both only have 1/2 genome

- each genome has 50% of your genome

- To win @ "Game of Bio"

- must produce viable offspring

- viable = capable of reproducing

Scientific Method

- Statistics can help us to make decisions

- variation exists

- Stats help us evaluate differences between treatment

+ control group

- larger # of participants better

- Statistical Test

- high bar

- also not random

- Correlation or Causation?

- biggest test in science

- just because things are correlated does not mean one caused the other

- What is the mechanism? How does it happen?

- Proves effect of gene normally

- Genes can be a correlation, but not a cause