

Bio 3
1/18/13
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- No Class Monday

1.2 Scientific Literacy

- thinking in a logical thought process
 - save money
 -
- how to use knowledge gained?
 - decipher gimmicks
- regulation agencies can not keep up
 - infomercials, social media all play a part to screw you.
 - companies use laws of physics or herbal remedies to sell products that don't really work.
- lack of scientific "~~superstition~~ skepticism"
 - ends up costing big money
 - may be dangerous to you and your family.
- Why + when do people dev. Superstition.
 - can animals be superstitious?
 - tarot reading
- superstition - an act of doing something to change the outcome of what may be.
 - Animal Superstition
 - rat training
 - 1/2 of rats have a time delay
 - experimental group
 - hit pedal - no food
 - rats create movements and repeat behaviors to get pellet of food.
 - behaviors become fixed.

1.3 Prove it

- because it is empirical, rational, testable, repeatable, and self correcting, the scientific method is a particularly effective approach.
- pseudoscience - claims based on scientific principle, but not scientific.

1.10 - When do hypothesis become theory

- hypothesis - a proposed explanation for a phenomenon
- educated guess

- theory - a hypothesis for natural phenomena that is exceptionally well supported by the data.

- a hypothesis that has stood the test of time and is unlikely to be altered by any new ~~the~~ evidence.

- once a theory is disproved it is no longer a theory.

- it will be thrown out and a new theory will be proposed.

- think Darwin, Einstein

- theories do not speculate.

- Pseudoscience - misleading anecdotal evidence can obscure ~~the~~ truth.

- individuals make scientific-sounding claims that are not supported or trustworthy, methodical scientific studies.