Life Science… 20 things Biologist just have to know!

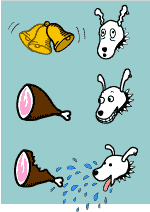
1. Cells are the building blocks of all living things!
2. All cells duplicate themselves.
3. If a cell makes an exact copy of itself, it copies 100% of its DNA and this process is called mitosis.
4. If a cell makes a half of a copy of itself, it copies, 50% of the DNA. This only happens in sex cells and this is called meiosis.
5. Cells all have things in common, like cell membranes, cytoplasm, mitochondria and a nucleus.
6. DNA, which stores our genetic information, is found in the nucleus of our cells.
7. The Sun is the main source of energy found on our earth!
8. An ecosystem is where living and non-living things are found together.
9. Living things change (adapt or metamorphosis) to survive in this world.
10. A food chain shows the transfer of energy, from one organism to another.
11. Producers are plants. They make their own food. (They do this through the process of photosynthesis).
12. Anything that eats a plant is called a consumer. (That is us, and cows and fish and lot of other animals.)
13. Photosynthesis is the process where plants make food for themselves (glucose) and oxygen for us. This happens in the chloroplast of plant cells.
14. Cellular respiration is the process that every living cell uses to make energy. It needs glucose and oxygen to start. This happens in all cells, within the mitochondria.
15. CTOSO! Is an easy way to remember how the smallest, microscopic living things, (CELLS), eventually become the biggest living thing (ORGANISMS). Cells make tissue. Tissue makes organs. Organs make organ systems. Organ systems make organisms.
16. Life comes about through reproduction.
17. Asexual reproduction has only 1 parent, so the offspring looks exactly like the parent.

Parent offspring

1. Sexual reproduction has two parents, so the offspring looks like a combination of both parents.

Parents offspring

1. A change in what happens around you is called a stimulus. You react to this by using your senses and nervous system. (This dog is responding to stimuli.)



1. Homeostasis is how organisms keep themselves in equilibrium (or in balance). You sweat when you are hot. It helps to cook you off and put you back in balance.

[](http://www.google.com/imgres?imgurl=http://enotamountainretreat.files.wordpress.com/2011/06/sweating-cartoon.jpg&imgrefurl=http://enotablog.com/2011/06/11/hot-tips-for-a-cool-you/&usg=__GPQMCQMRW2YzxhoTnVk_YHbsOS8=&h=458&w=450&sz=71&hl=en&start=2&zoom=1&tbnid=vLpbWIPSdd4Q7M:&tbnh=128&tbnw=126&ei=Vz1HUZPsN9Le4AOi7ICoAw&prev=/search%3Fq%3Dcartoon%2Bon%2Bsweating%26hl%3Den%26safe%3Dactive%26gbv%3D2%26tbm%3Disch&itbs=1&sa=X&ved=0CCwQrQMwAQ)