Lesson 8

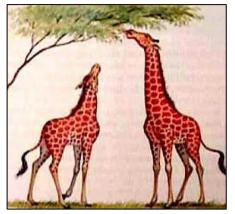
Lesson 8: STORIES OF RANDOM CHANGE – THE GIRAFFE

1. Explanation #1: PROGRESS THROUGH USE

Before Darwin, scientists thought that the giraffe kept stretching her neck to reach the leaves. This long neck passed on to her babies.

2. Explanation #2: NATURAL SELECTION

Some giraffes have long, short or medium necks. The ones with long necks survive better because they can reach more leaves. This is called **"Survival of the fittest."** So, **Nature selects** the best giraffes to live better and longer and to have more babies. Eventually all giraffes have long necks.



3. Explanation #3: MUTATIONS

A slight mistake (gene mutation) happened before the giraffe was born. So, the baby giraffe was a little different. These little **accidenta**l changes helped him to survive better. In later generations, many more small changes happened randomly. After many generations, these small changes added up. So, the giraffe ended up with a long neck. She had babies that also had long necks. **Small changes added up** over millions of years and slowly caused Evolution.

4. Explanation #4: "PUNCTUATED EQUILIBRIUM"

A strange thing happened to cause **one** giraffe to have a <u>very different</u> baby. (Before it was born, it had *many* mutations.) It was like a monster giraffe. This caused



great changes to happen quickly. (A simple explanation.)

Harvard's Stephen Gould said there is "No support for *gradual* change." He said, "Macro-Evolution proceeds by the rare success of these **hopeful monsters**, not by continuous small changes within populations." **"Could a bird, for example, hatch from a reptile's egg?"**

Natural History, June-July 1977 Discover Magazine, May-June 1981

Activity: Look at children's books on Evolution To see how some in our culture have a strong desire to convince kids.

Watch (minute 3:48-9:14) <u>https://youtu.be/XNLORp-E3nk</u> 6 Reasons Not to Believe in Evolution by World Video Bible School



THE GIRAFFE: DESIGNED OR EVOLVED?

Did you know that the giraffe would blow his brains out every time it bent its head down to get a drink of water without some specific mechanisms to take care of that problem?



A bull giraffe is about 18 feet tall. His heart is about 2 ½ feet long so he can pump the blood into his brain. Whenever a giraffe begins to bend down to get a drink, that last pump of blood is on its way to the brain. It has enough power to literally blow the giraffe's brains out when he gets his head down. But it doesn't happen. Why?

When he begins to bend his head down, some valves in the arteries in his neck begin to close. That last pump of blood is already beyond the last valve. But it doesn't go into the brain. It goes in under the brain into a small sponge-like set of blood vessels that gradually swell up.

What happens when he stands up? Does he suddenly pass out from lack of oxygen? No. As the giraffe begins to move his head up, those valves in the neck open. Some of the valves in the veins in the neck begin to close. The sponge underneath the brain with that last little pump of oxygenated blood squeezes gently up into the giraffe's brain. So, the giraffe's brain has fully oxygenated blood whether he is down drinking or standing up, or trying to get up. He is able to function perfectly in any position.

If the giraffe evolved his long neck, what happened to the first giraffe that discovered that his heart was too big? When he bent down to get a drink he would have blown his brains out. After that he would have thought, "I need to evolve something to protect my brain." Right? No, he's dead. He wouldn't be around long enough to evolve to the next step.

If a short-necked animal had this long-necked baby, think of all the changes that would have to occur by accident!

Watch this video: (4:54) https://youtu.be/XB1XWV7-VtA "Wonders of Creation: Giraffes" by World Video Bible School

GIRAFFE: DESIGNED OR EVOLVED WHICH IS MORE REASONABLE TO BELIEVE?

I believe: _____