7. The myelin sheath is not well developed at birth, and babies' movements are jerky and uncoordinated.
8. The gap between cells across which the impulse must travel is known as the synapse.
9. Neurotransmitters are chemicals used to transmit the impulse across the synapse.
10. The human nervous system is separated into two major divisions: the central nervous system and the peripheral nervous system
11. The brain is wrapped in a triple layer of connective tissue called the meninges
12. Between these layers and the brain is the cerebrospinal fluid, which acts as a shock absorber and allows exchange of nutrients and waste.
13. The spinal cord connects the brain to the rest of the body through 31 pairs of spinal nerves, and has the ability to process certain reflex actions.
14. The peripheral nervous system refers to everything outside of the brain and spinal cord
15. The PNS has two main parts: the somatic nervous system, and the autonomic nervous system.
16. The somatic nervous system coordinates voluntary actions.
17. The autonomic nervous system coordinates involuntary actions, and is divided into the sympathetic and parasympathetic nervous systems.
18. The sympathetic and parasympathetic systems have opposite effects on the same organs.
19. The sympathetic system functions under stress by increasing the heart rate, dilating the pupils, and inhibiting digestion.
20. The parasympathetic system brings things back to normal by decreasing the heart rate, constricting the pupils, and stimulating digestive activity.
21. In the human eye, light enters through the cornea, a tough, transparent layer.
22. Light then passes through the fluid-filled chamber called the aqueous humour.
23. Behind the aqueous humor is the iris, or the colored part of the eye.
24. The pupil is actually a small opening in the iris which regulates the amount of light entering the eye.
25. Behind the iris is the lens, which can be adjusted by tiny muscles to help the eye focus.
26. Behind the lens is the vitreous humour, which is the clear, jelly-like fluid which fills the eye.
27. The lens focuses light onto the retina at the back of the eye.
28. Nerves which are sensitive to light (or photoreceptors) on the retina convert light energy into nerve impulses.
29. Rods are sensitive to light, but do not distinguish color; cones are less sensitive, but produce color vision.
30. The optic nerve passes through the back of the eye. Because there are no photoreceptors here, a blind spot is created.
31. The eardrum, or tympanum, vibrates according to the sound waves it receives.
32. Sound waves are transmitted to the inner ear, or cochlea, by three tiny bones.
33. The semicircular canals monitor your body position and provide your sense of balance.
34. The senses of smell and taste are provided by chemoreceptors, which convert chemical energy into nerve impulses.

Evolution

1. Charles Darwin, author of *The Origin of Species*, changed the course of scientific history in the early 1800's with his radical theories.
2. Darwin's voyage aboard the H.M.S. Beagle led him to propose a revolutionary hypothesis about life.
3. On the Galapagos Islands, Darwin observed the characteristics of many plants and animals, such as finches and tortoises.
4. His theories centered mainly around the concepts of evolution and natural selection
5. A scientific theory is a well-supported, testable explanation of phenomena that occur in the natural world.
6. At the time Darwin presented his case, popular European beliefs included: the Earth was only a few thousand years old; and the planet and all its inhabitants were created and had not changed over time.
7. Hutton proposed that the Earth is shaped by geological forces that took place over millions of years.
8. Lyell stressed that scientists must be able to explain past events in terms of processes that could be observed in the present day.
9. Lamarck observed that organisms change over time, and that they are adapted to their environments.
10. Darwin asked, "If Earth could change over time, then could life change as well?"
11. Lamarck's hypothesis was later found to be incorrect.