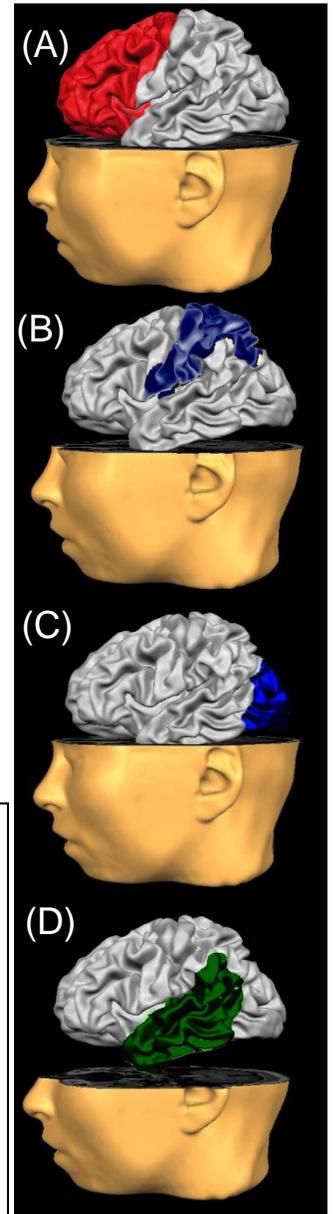
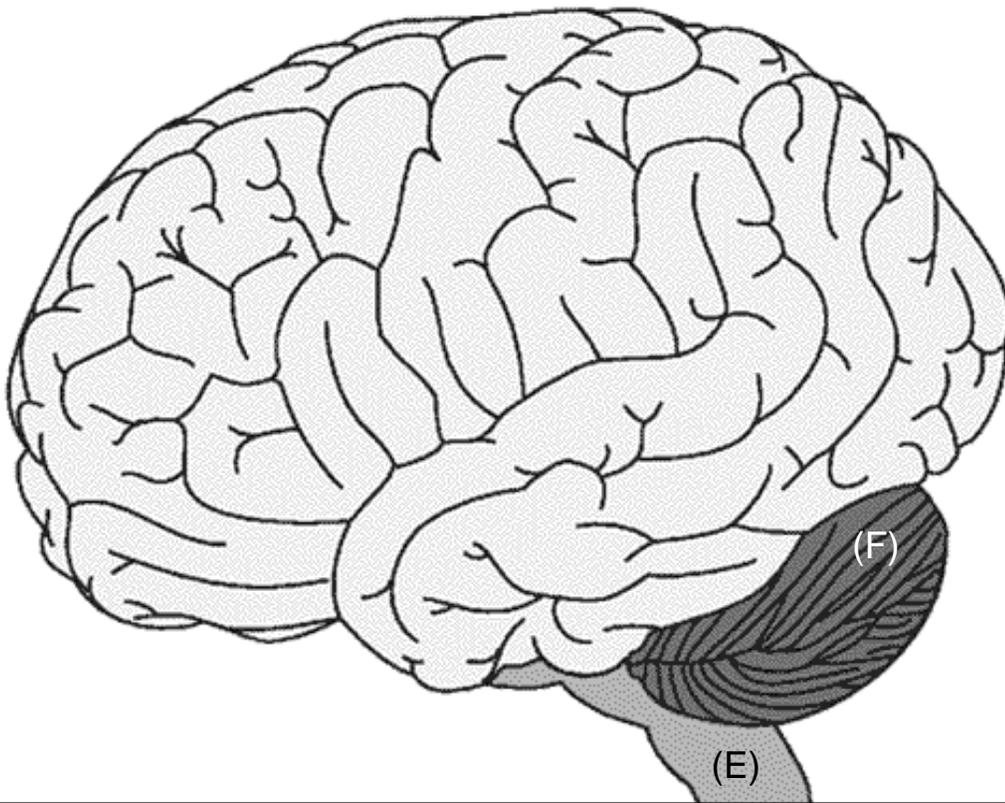




**The Stress, Cognition, and Affective Neuroscience (SCAN) Laboratory at the University of New Orleans.** Visit us online! [www.scanlaboratory.org](http://www.scanlaboratory.org). Then come visit our booth at the Zephyrs game where you can surf through magnetic resonance images of a real brain! - Dr. Elliott Beaton (Dr. B)

Running, thinking, eating, seeing, listening, remembering, and even your heartbeat is controlled by your brain. Your brain is an organ that is located inside your skull and it makes you – YOU! The human brain is especially complicated and relatively large for the size of our bodies.

**Color the cortex!** The wrinkly surface of the brain is called the cortex. While all the areas of the brain work together, some areas have special jobs. The brain is often described as having four lobes. These are shown on the right of your page. **Color the four cortical lobes, the brain stem, and the cerebellum different colors.** Teachers and Parents: Some of the images here were generated using an excellent and free brain atlas program: <http://www.brainvoyager.com/products/braintutor.html>



- The **frontal lobe (A)** helps you make plans, think about complicated things, and helps you calm down if you feel angry, scared, or overly excited.
- The **parietal lobe (B)** controls movement of your body and the experience of touch, taste, and even your temperature.
- The **occipital lobe (C)** is responsible for your vision and processing information about what you see with your eyes.
- The **temporal lobe (D)** handles language, memory, and your hearing.
- There is more under the cortex too. You can see part of the **brain stem (E)** and the **cerebellum (F)** (the other wrinkly bit) sticking out the bottom. The brain stem controls your heartbeat and breathing while your cerebellum takes care of your balance and coordination



These are digital images and three-dimensional (3D) reconstructions of a real human brain! These are collected using a **Magnetic Resonance Imaging (MRI)** machine. Each image is called a 'slice' – not because we actually slice the brain but because each image is 1 to 4 millimeters (mm) thick and when we put them together, the computer can make a 3D reconstruction of the brain that we can look at.

Let's look at just some parts of the brain involved in playing baseball!

**Cerebellum:** running, catching the ball, throwing the ball. (1)

**Frontal Lobe:** remembering the rules, strategy, and planning. (2)

**Motor Cortex:** moving your body, running, throwing, catching. (3)

**Somatosensory Cortex:** sensation of touch when you hold the bat, ball, or mitt. The feeling of hitting or catching the ball in your arms and hands (4)

**Brain Stem:** getting your heart pumping and breathing when you are running around the field. (5)

**Basal Ganglia:** lots of things including control of movement, learning procedures like how to play baseball, eye movements and even habits! (6)

**Auditory Cortex:** hearing everything. (7)

**Visual Cortex:** seeing everything. (8)

**Superior Parietal Cortex:** knowing where sounds and things are located in relation to you. (9)

