

Handy Model of the Brain Explanation*

Today we are going to talk about the brain.

There is a lot to know about the brain. We are going to keep it simple today and talk about three specific parts.

Hold up your hand and give me five.

- › Fold your thumb in and close your fingers over your thumb to make a fist. This is our **handy model** of the brain.
- › **Pre-frontal Cortex:** The top third of our fingers (where our fingernails are) represent the pre-frontal cortex. Say that out loud for me: “pre-frontal cortex”. Now, turn to a friend and say it: “pre-frontal cortex.” Our pre-frontal cortex is what makes us human. It allows us to think, make decisions and plan ahead. It is fully developed when you are 25 years old. Dogs and cats do not have a pre-frontal cortex even though they have brains.
- › **Hippocampus:** Open up your hand (brain) and look at the center of your palm. This part is called the hippocampus. Say that for me: “hippocampus”. Now, turn to a neighbor and say it: “hippocampus”. Our hippocampus is in charge of memory. When you get a good night sleep, information is downloaded into your hippocampus.
- › **Amygdala:** Now fold your thumb into the palm of your hand. Close to the hippocampus is our amygdala. Say that for me: “amygdala”. Now, turn to a neighbor and say it: “amygdala”. The amygdala is in charge of keeping us safe at all

cost. The amygdala’s motto is, “Act now, think later.”

Your amygdala is fully developed when you’re born and it gets its information from the five senses. What are the five senses? Seeing, hearing, tasting, touching and smelling.

When we touch a hot stove, our amygdala fires and sends a message to pull our hand away **to keep us safe**.

The amygdala keeps us safe by moving our body into fight, flight or freeze.

If everything is going well, your amygdala says “all is safe” and passes information to your pre-frontal cortex which then downloads it to your hippocampus.

But, let’s say you have a bumpy bus ride (or you’re starting to get stressed out or you’re worried about a test) then your amygdala fires and you blow your top. Now who’s in charge? Yes, your amygdala and “act now, think later” is in charge.

This is why sometimes we do things without thinking. Blood flows from our pre-frontal cortex to our hands and feet so we can **fight, flight or freeze**.

The practices we’re going to learn can help to calm our amygdala. **These practices include:**

- › Breathing
- › Mindful movement
- › Listening to music, and art

What things do you do to calm yourself down?

* From *The Whole-Brain Child* by Daniel Siegel and Tina Payne Bryson

