

Stress Response

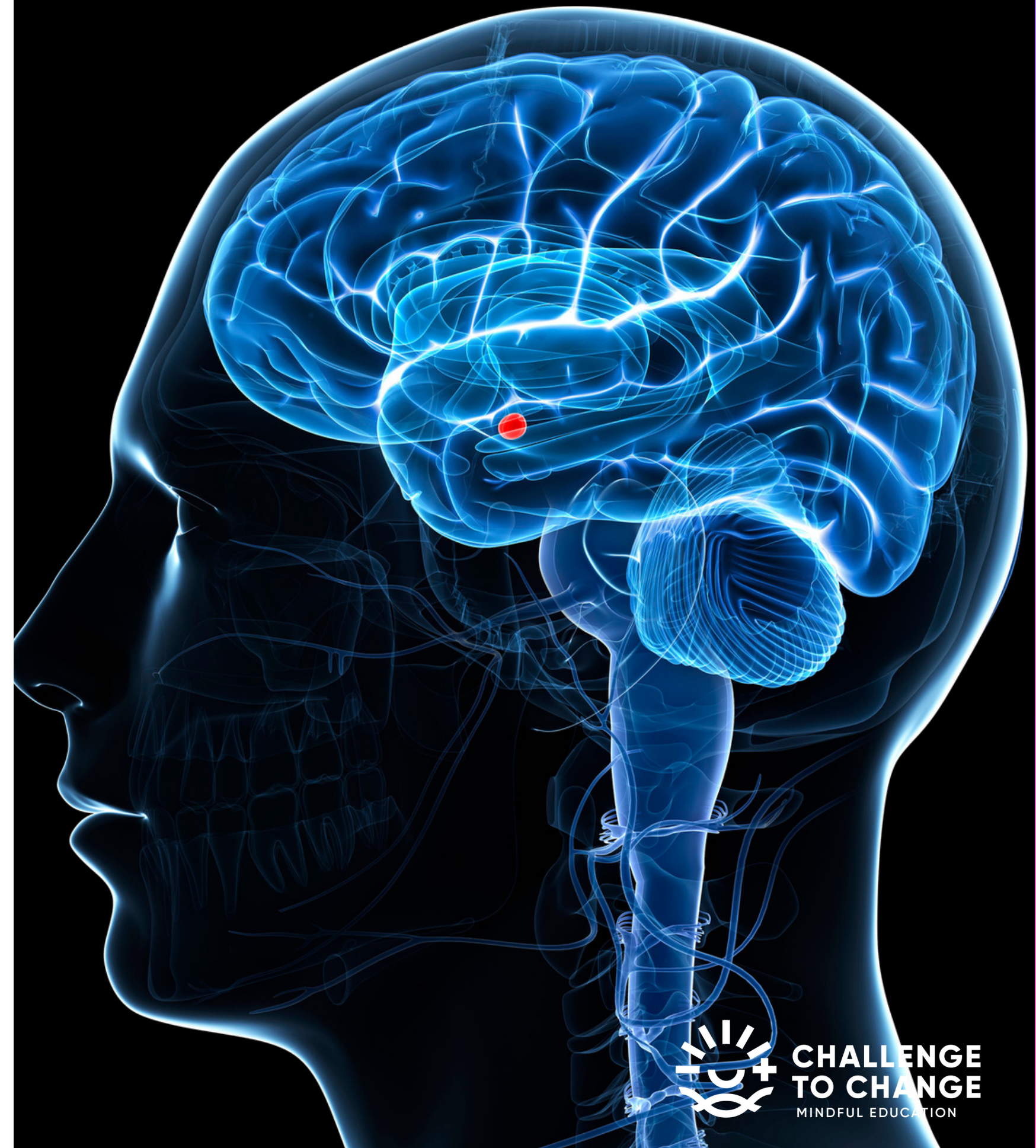
Grade 4, Lesson 5

Memory and Emotions

- Our memory helps us become and stay who we are as a person.
- What are some things your memory helps you with?

Amygdala

- Located in the interior of your brain.
- The **amygdala** is a small but mighty part.



Amygdala Discussion

- The amygdala is a primal part of your brain that helps keep you safe.
- It can be thought of as the **“Security Guard”** of your brain.
- This part of your brain takes in **sensory input**, information from the 5 senses.
 - When the amygdala senses danger from sensory input it creates a response in your brain.
 - This response is the **stress response**.
- *Option to show video to further explain amygdala responsibilities.*

Stress Response

When the stress response is activated:

- Your body reacts through: **fight, flight, or freeze**.
- **Chemicals** are released to prepare your body for strength, speed, or stillness.
- This response used to be critical for our **survival**.
 - Ex. surviving dangerous predators.
- Today, our stress response can be activated even though we are not in danger and may look different than it once did.
 - Ex. shutting down, yelling, or wanting to escape.

Fight, Flight, or Freeze Activity

For each scenario, show if you think your body would react with fight, flight, or freeze by making the specified action.

- **Fight:** boxing stance with arms blocking the face.
- **Flight:** flap arms.
- **Freeze:** arms and legs straight down and together.

Scenarios:

1. There is a bee flying near your face.
2. You are in gym class and a soccer ball is coming toward your face.
3. It is your first day at a new school.
4. You are going to give a speech.
5. A big beetle landed on your arm.

Prefrontal Cortex

- The biggest part of your brain.
- The **prefrontal cortex** is located at the front of your brain.
- This part of the brain is the last to finish developing.



Prefrontal Cortex Discussion

- The prefrontal cortex is **responsible** for making decisions, your personality, reasoning, controlling your emotions, learning, humor, and anything that makes you unique.
- This is the **last part** of your brain to develop. It is still developing until about the age of 25!
- A person could survive an injury to the prefrontal cortex but it would have an impact on the above stated responsibilities.
- *Option to show video to further explain prefrontal cortex responsibilities.*

Prefrontal Cortex Activity

- Think back to the scenarios you practiced for Fight, Flight, or Freeze. How might your prefrontal cortex interpret those same scenarios?
- Knowing that it helps you with decision making, reasoning, and emotional regulation, how do you think your prefrontal cortex's involvement in the situation will help?

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Wrap Up

Amygdala
responsibilities

Prefrontal
Cortex
responsibilities