

LESSON: Review particular brain structures and their associated functions:

- Cerebellum - Balance & coordination
- Hypothalamus - Drives, thirst, food, body temp., “Internal Milieu”
- Amygdala - Fear, aggression, emotions
- Frontal lobe - Problem solving, motor
- Etc...

Goal: Prime students for upcoming activities.

ACTIVITY: Drawing structures and functions

Break class into groups. Assign/name each group one of the structures just discussed.

Each group will draw a picture depicting an activity associated with the function of their group’s structure and present to the class.

Time: ~10 minutes

ACTIVITY: Diagnosing a Zombie

Time: ~15 minutes

Scenario: There is a zombie outbreak in the city! Each group is in charge of diagnosing a patient/patients that is suspected of being a zombie.

Each group will have a list of either one or all of the following Zombie-like afflictions. Each group will draw a picture of the brain with the associated part damaged:

-Zombie Stagger

Your patient comes to you staggering slightly, feeling dizzy and complaining of minor balance issues, especially while walking. They have recently begun to feel uncoordinated and now prefers to walk with hands out in front of them to help balance.

What brain structure may be afflicted?

-Zombie Appetite

Your patient comes to you with complaints of a deep, insatiable hunger (specifically for brains and other organs). They complain of constantly feeling hungry, thirsty and cannot fulfill this hunger with any normal food.

What brain structure is likely damaged?

-Zombie Rage

Your patient is constantly angry! His wife complains that he is always yelling, snarling and groaning at everything. She is unable to calm him down, and nothing seems to make him happy anymore. He cannot seem to control his emotions, and he is easily enraged.

What brain structure is likely affected?

-Problem Solving

Your patient's sister complains that your patient can never reach a decision. She states that your patient is "no longer herself" and struggles to solve problems. She cannot open doors, and prefers to bash through them. She can't even open jars, her hands and arms don't seem to be able to hold the jar and lid easily. This upsets her and now she prefers to smash the jars on the floor.

Why brain structure is likely affected?

While groups are diagnosing their patients, provide guided assistance and keep on topic.

Lead the class in a discussion

OUTSIDE ACTIVITY: Zombie Tag

Time: ~20 minutes

Go outside and assign some students brain structures (cerebellum, hypothalamus, amygdala, frontal lobe). The other students will be "zombies."

Students assigned to structures will be asked to perform a task together - ex: play basketball H.O.R.S.E., line up a certain way, passing a ball down a line (something requiring group coordination).

Then the zombies will tag or, “infect” the brain structures, and these structures will respond by representing/acting out the damage to their particular brain structures.

Example: The amygdala student gets tagged - so when the ball is passed to them they freak out and pretend to get really angry, or afraid, etc.

Cerebellum students get tagged – they act dizzy, uncoordinated, fall over, etc.

Return to the classroom and have a follow-up discussion about what was just demonstrated.

BONUS: Order a brain mold online and continue with the Zombie theme by making an edible brain! There are various recipes online for gelatin and rice cereal zombie brains.

