

How the Brain Works

Setting: In a classroom

Subject: Biology - Neuroscience - Health

Grade Level: K-2nd grade

Time Frame: 20 min

Student Objectives:

1. Understand what the brain looks like and the role of the brain

Materials:

1. One coloring sheet marked with the different regions of the brain
2. One brain maze
 - a. Note: crayons/markers and a pencil are also needed

Background:

In this activity, students will have the opportunity to interact with a graphic of a brain through coloring and learn a little about what the brain does.

What to know before you teach:

This information is primarily for the teacher's background knowledge. Ample notes are provided for each slide.

- Frontal Lobe: Complex thinking, like reasoning, planning, and imagining
- Parietal Lobe: Processes messages related to touch, taste, and temperature; controls muscle movement
- Occipital Lobe: Processes sight
- Temporal Lobe: Process hearing; memory retrieval
- Cerebellum: Coordinates balance and fine movements
- Brain Stem: Regulates vital functions, like heartbeat and breathing
- Alzheimer's disease is not a normal part of aging.
- Dementia versus Alzheimer's disease: dementia is the umbrella term describing the clinical symptoms and there are many different neurodegenerative diseases that cause symptoms of dementia. Alzheimer's disease is the most common cause of dementia.
- Whenever someone is concerned about their cognition (thinking, planning, decision-making, memory, etc) it is always a good idea to go to the doctor for evaluation to understand what is causing the cognitive changes. A doctor will do many different tests to understand what the cause of the symptoms are and to treat it as best as possible.

Procedure:

1. Briefly introduce the module and ask students to point to where their brain is. Ask them to describe what they think their brain looks like and what the brain does.
2. Next hand out one coloring sheet to each student. Briefly talk about each main brain region, adapting to your class as needed. Instruct them to color in the brain, coloring each brain region a different color (older students).
3. Next hand out a brain maze and ask them to complete it.