



LESSON PLAN: DIY Papier-Mâché Brain Caps

Topic: The Anatomy of the Brain | Sections of the brain

Subject | Stream:

Arts
Biology
Health & Wellness
Science

Grade Level:

Junior (4-6)
Intermediate (7-10)
Senior (11 & 12)

Objective(s):

To teach participants about the functions of the major lobes of the brain by making a papier-mâché hat to wear.

To familiarize participants with the relative locations of the major lobes of the brain as designed on the papier-mâché hat.

Brief Summary:

This activity aims to teach students about the functions and relative locations of all major lobes of the brain, using papier-mâché to create their personalized *thinking caps*.

Background Information:

See handout: Sections of the brain for lesson content.

Frontal Lobe

- Intelligence
- Reasoning
- Behaviour
- Memory
- Smell
- Movement

Parietal Lobe



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- Sensory perception
- Spatial perception
- Hearing
- Language
- Attention

Occipital Lobe

- Vision

Temporal Lobe

- Hearing and vision pathways
- Language
- Memory
- Behaviour

Resources | Materials Required per Pair:

- Glue
- Room-temperature water
- Old newspapers or magazines
- X number of latex balloons (one per participant or team + few extras for contingency)
- Ballpoint pens (or any other sharp school-safe utensils to pop the balloons)
- Scissors
- X number of bowls (one per participant or team)
- X number of spoons (one per participant or team)
- A diagram of the brain to use as a reference when decorating
- Acrylic paint (for decoration)
- Handout: Sections of the brain
- Handout - Picture of the brain and sections

Activity Instructions:

Step 1: Each participant must inflate a latex balloon and tie the ends once they feel it has reached a size that matches their head shape.

- One representative may complete this step on behalf of the group if participants are split into teams of 3 or 4.





Step 2: In one bowl, mix two (2) parts glue with one (1) part room-temperature water - this should form a paste.

Step 3: Each participant must tear their newspapers / magazines into ruler-sized horizontal strips (the strips do not need to be perfect).

- Participants must take each strip, dunk it into the glue-water paste, and gently begin wrapping the top half of the inflated balloon.
- Let each newspaper strip dry before adding a new layer.
- Add enough layers (overlapping strips) to form a strong structure around the balloon.

Step 4: When the papier-mâché structure is dry / rigid to touch, participants must use a ball-point pen (or any other sharp school-safe utensil) to pop the bottom-half portion of the latex balloon.

- Slowly peel away the latex fragments from the hardened papier-mâché shell.
- Participants may use scissors to cut the edges of the structure and repair the sides for a good fit of the head - after all, it is a brain cap!

Step 5: Using a diagram of the brain, participants are encouraged to paint and decorate their papier-mâché brain caps with:

- The major lobes of the brain and their respective functions.

