

activity 4.1

mini-project: the brain

Developed by

Nancy Fenton

Adlai E. Stevenson High School, Lincolnshire, IL,
and

Hilary Rosenthal

Glenbrook South High School, Glenview, IL

CONCEPT

The purpose of this exercise is to familiarize students with the various parts of the brain, their location, and functions.

MATERIALS

You will need a group of index cards or pieces of paper, each with either a different brain area or structure on it, and research materials either online or in print format.

INSTRUCTIONS

Have students randomly choose a brain structure to research. Choices may be written on slips of paper or index cards and drawn out of a container or handed out as students enter the classroom. Research may be conducted in the library or computer lab during a class period or given as homework (or a combination of the two). Students should be asked to answer questions such as the following about the structure they have selected:

- Where is it located?
- What does it look like? (Include illustration.)
- What are its major functions?
- What techniques are used to view or measure it?
- What happens when it is damaged?
- What other structures is it near?
- What other structures help or perform similar functions?

Once students have researched and answered these knowledge-level questions, the assignment should extend to more creative and constructive work. Examples include the following:

- Create a mnemonic device that will help classmates remember the most important information about your structure.

(activity 4.1 continued on next page)

- Design a T-shirt with an illustration of structure and function.
- Compose a motto/bumper sticker your structure might adopt.
- Create a cartoon featuring your structure.

Finally, as a class activity, you might want to have students arrange a brain taxonomy. Give them (or have them make) name tags depicting their structures. Each will then “collect” three or four other students that are related to them in some way. At the end of the collection phase, groups will explain the principle by which they are related. These principles may relate to location, function, or any other system they can justify.