

Practical investigations

1 • Brain dissection

Communicating

Purpose

To investigate the structure of a brain.

Timing 60 minutes

Materials

- 1 partly frozen lamb's brain
- scalpel
- dissection board
- newspaper
- disinfectant

SAFETY

Take extreme care with scalpels. Wear rubber gloves, safety glasses and a laboratory coat or an apron at all times.

Procedure

- 1 Cover your workbench in newspaper and place the dissection board on it.
- 2 Carefully inspect the surface of the brain. Use Figure 7.2.18 to identify the cerebrum, cerebellum, brain stem (medulla) and spinal cord.
- 3 The brain has a fine membrane or 'skin'. If possible, use the edge of your scalpel to lift and peel it off the brain.
- 4 Slice the brain in half, separating the right and left hemispheres.
- 5 Remove the cerebellum and brain stem (medulla).
- 6 If it is still sufficiently frozen, then slice the brain into thin slices. Use Figure 7.2.9 on page 283 and Figure 7.2.18 to help you identify the pituitary gland and hypothalamus.
- 7 Dispose of the remains and clean the dissecting board and equipment according to your teacher's instructions.

Results

Construct a table like the one below to summarise your observations about the size, colour, texture and consistency of everything you identified.

Brain structures and observations

Part	Size	Colour	Texture	Consistency
cerebrum				
cerebellum				

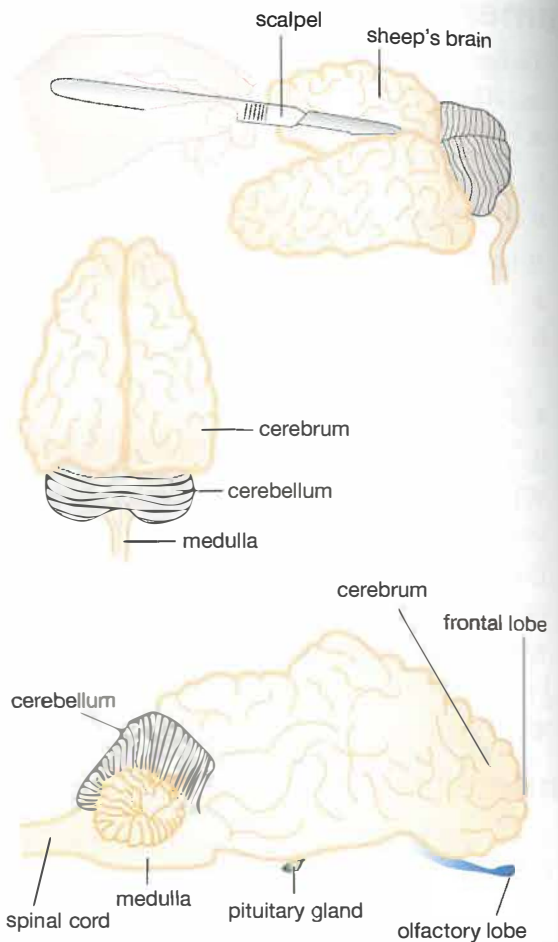


FIGURE 7.2.18

Review

- 1 Why do you think a frozen brain was dissected and not a fresh brain?
- 2 How did you identify which hemisphere was the left one and which was the right?

SkillBuilder

Using a scalpel

When using the scalpel:

- make many light cuts instead of one deep cut
- cut away from the hand holding the brain in place.