Love on the brain

This activity celebrates Valentine's day. Researchers found four areas of the brain that are activated when you fall madly in love. Two other areas – linked to depression and sadness – are deactivated at the same time. In this activity, students discover the brain's 'love locations', look at the brain as an organ and remind themselves about respiration. The end result? A truly original Valentine's card!

11 – 14	**7a cells** **8b respiration**
Topics	**cells** **respiration**

Curriculum link

- 7a cells – cells are grouped into tissues; tissues make up organs; specialized cells
- 8b respiration - aerobic respiration; oxygen and glucose are transported in the blood

Learning objective

- Students will know that certain parts of the brain are active in love
- Students will look at the brain as an organ and as a collection of cells that respire

Running the activity

Suggested time: 20 minutes

Possible starter:
Show **page 1** - either projected or as an overhead transparency. This page shows the areas of the brain that are activated and deactivated by love. Ask students how they think scientists identified these areas.

Main activity:
Show **page 2**. This information sheet briefly describes the research process, the brain as an organ, respiration and MRI scanning. Then ask students to do the activity at the bottom of this page – to design a Valentine's card based on some of the information given.

Web links

For a straightforward report of the research, see
http://www.bbc.co.uk/science/hottopics/love/brain.shtml

This article is more detailed, and includes more background information about the research:
http://www.studentbmj.com/back_issues/0800/news/264a.html

This website has flashing graphics showing the activated areas of the brain.
http://health.discovery.com/convergence/scienceoflove/fallinginlove.html

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