**Article of the week 1**

Brain scans reveal the power of art

Works of art can give as much joy as being head over heels in love, according to a new scientific study.

By [Robert Mendick](http://www.telegraph.co.uk/journalists/robert-mendick/), Chief reporter

8:00AM BST 08 May 2011

<http://www.telegraph.co.uk/culture/art/art-news/8500012/Brain-scans-reveal-the-power-of-art.html>

**Read and annotate the following article. Answer the questions that follow.**

Human guinea pigs underwent brain scans while being shown a series of 30 paintings by some of the world's greatest artists.

The artworks they considered most beautiful increased blood flow in a certain part of the brain by as much as 10 percent – the equivalent to gazing at a loved one.

Paintings by John Constable, Ingres, the French neoclassical painter, and Guido Reni, the 17th century Italian artist, produced the most powerful 'pleasure' response in those taking part in the experiment.

Works by Hieronymus Bosch, Honore Damier and the Flemish artist Massys – the 'ugliest' art used in the experiment – led to the smallest increases in blood flow. Other paintings shown were by artists such as Monet, Rembrandt, [**Leonardo da Vinci**](http://www.telegraph.co.uk/culture/art/leonardo-da-vinci/) and Cezanne.

Professor Semir Zeki, chair in neuroaesthetics at University College London, who conducted the experiment, said: "We wanted to see what happens in the brain when you look at beautiful paintings.

"What we found is when you look at art – whether it is a landscape, a still life, an abstract or a portrait – there is strong activity in that part of the brain related to pleasure.

"We put people in a scanner and showed them a series of paintings every ten seconds. We then measured the change in blood flow in one part of the brain.

"The reaction was immediate. What we found was the increase in blood flow was in proportion to how much the painting was liked.

"The blood flow increased for a beautiful painting just as it increases when you look at somebody you love. It tells us art induces a feel good sensation direct to the brain."

The test was carried out on dozens of people, who were picked at random but who had little prior knowledge of art and therefore would not be unduly influenced by current tastes and the fashionability of the artist.

The magnetic resonance imaging (MRI) scan measured blood flow in the medial orbitofrontal cortex, part of the brain associated with pleasure and desire.

The study, which is currently being peer reviewed, is likely to be published in an academic journal later this year.

Professor Zeki added: "What we are doing is giving scientific truth to what has been known for a long time – that beautiful paintings makes us feel much better.

"But what we didn't realise until we did these studies is just how powerful the effect on the brain is."

The study is being seized upon as proof of the need for art to be made as widely available to the general public as possible.

There is currently concern in the arts world that widespread budget cuts could affect accessibility while also slashing acquisition budgets.

"I have always believed art matters, so it is exciting to see some scientific evidence to support the view that life is enhanced by instantaneous contact with works of art," said Dr. Stephen Deuchar, director of the Art Fund, the national fundraising charity which has spent £24 million over the last five years helping to buy art for galleries and museums.

Last month, the organisation launched a [**National Art Pass**](http://www.artfund.org/join/national-art-pass-benefits) giving free entry to more than 200 museums and galleries and 50 per cent off entry to major exhibitions.

The Art Fund has pledged to increase its funding by 50 percent to £7 million a year by 2014 to make up for widespread budget cuts in the arts world.

The charity has been praised by Culture Secretary Jeremy Hunt for showing that "philanthropy can be about small as well as large donations".

**Answer the following questions in complete, thorough sentences. Be sure to TAG and ICE! Use the ACTIVE READING STRATEGY.**

What artists’ paintings were considered most beautiful? Which were considered ‘ugly’?

Explain how the study was conducted and what it found.

**In the article “Brain scans reveal the power of art” by Robert Mendick, a study was conducted that revealed that when people looked at artwork they liked their brain activity increased. Participants in the study were shown several different paintings while in an MRI scan that “measured blood flow in the … part of the brain associated with pleasure and desire” (par. 10). According to the creator of the study, Semir Zeki, “there is strong activity in that part of the brain related to pleasure” when people view paintings they like (par. 6). Brain activity increased about the same when people looked at paintings they liked as when people look upon a loved one.**

Who conducted the experiment?

In the first paragraph of the article, what does the use of the phrase ‘guinea pigs’ mean?

RESEARCH: As a group, look up paintings by the artists who were considered the most beautiful. Which painting do YOU think is most beautiful? Give the artist name and the title of the painting. Explain why you think it is the most beautiful (HINT: what feelings does it evoke; do you like the scene, the colors, the subject; is it familiar or new?).

Using context clues, find the word **acquisition** in the 14th paragraph and determine a definition. AFTER you have written your own definition, look up the actual definition of the word and write it down. Is your definition similar to the original? How do they differ?

Why do you think that art produces similar feelings to being in love?

There are multiple examples in the article of it being published in another country. Find two examples.

Why do you think art is important? Why do you think the Art Fund gave free entry to museums?

Create an MLA citation for this article.