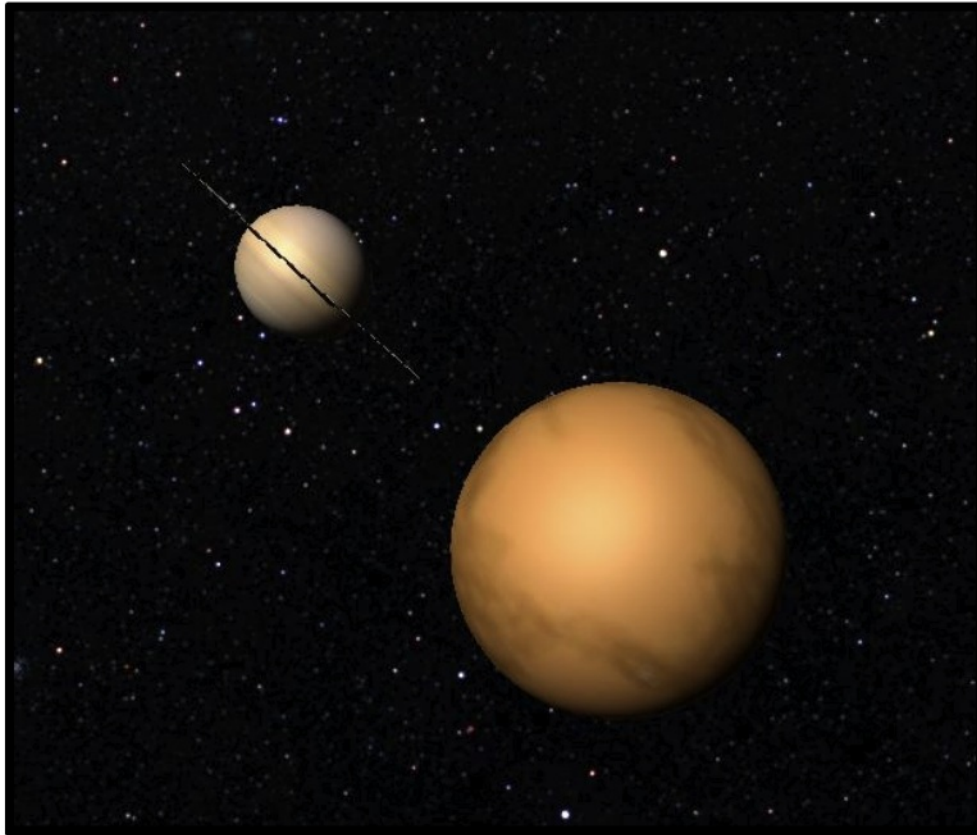


Learner Response Systems - emotion and motivation.

Dr John Collick



What is the name of
Saturn's largest moon?





The **ActivClassroom** by PROMETHEAN

Who was the first man in space?

A: John Glenn

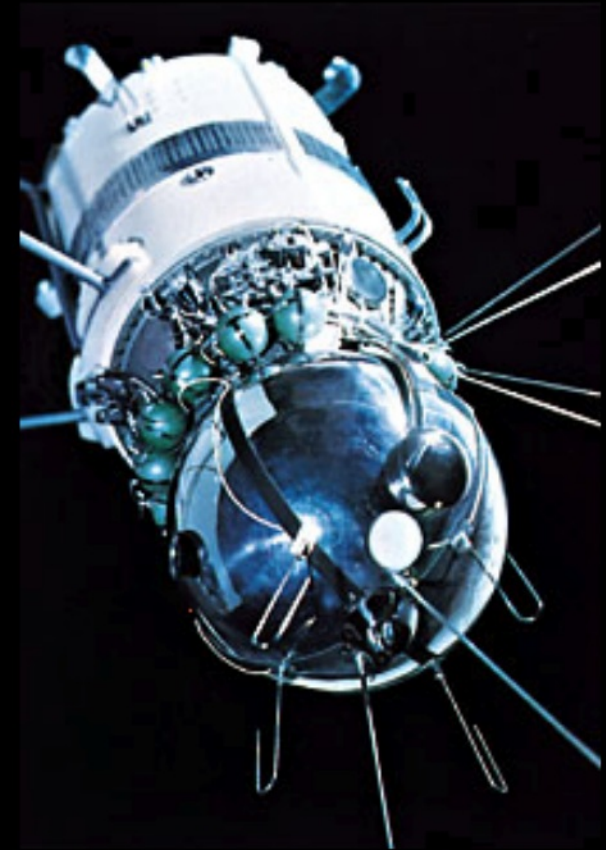
B: Yuri Gagarin

C: Neil Armstrong

D: Alan Shepherd

E: Pavel Chekov

F: Buzz Aldrin



Digital Natives

Social networking

Gaming

Personal data assistants





The **ActivClassroom** by PROMETHEAN



Scanning the Human Mind

1990s to the present - Magnetic Resonance Imaging

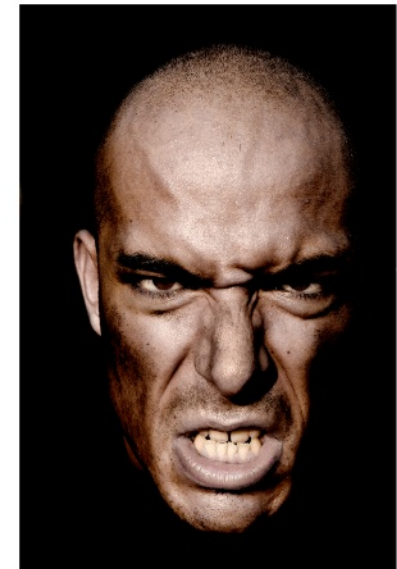
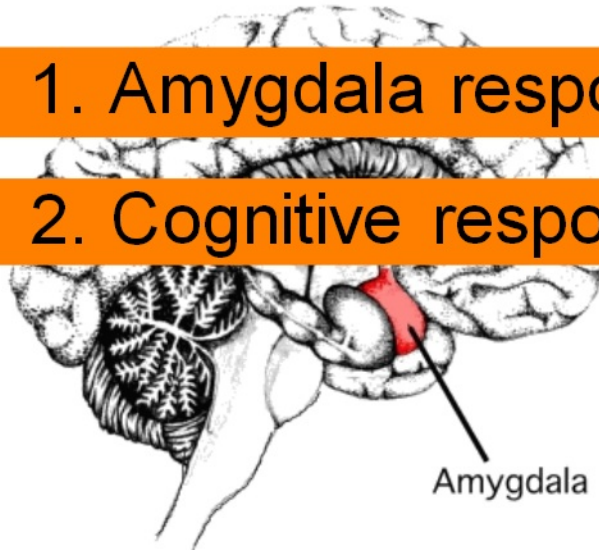
fMRI and MRI scanning allow us to observe the human brain, as it thinks without using invasive techniques.



What just happened in your brain?

1. Amygdala response - Stress/Fear response

2. Cognitive response "I'm frightened!"



Emotion and cognition



1. Negative emotion comes from the Amygdala
2. The Amygdala is quicker than thought
3. Negative emotion overrides cognition

Negative emotion and school

Persistent low level stress causes a permanent low level flight/fight response.

Bored unhappy students do not learn learn effectively.

difficult texts
teacher goes too quickly

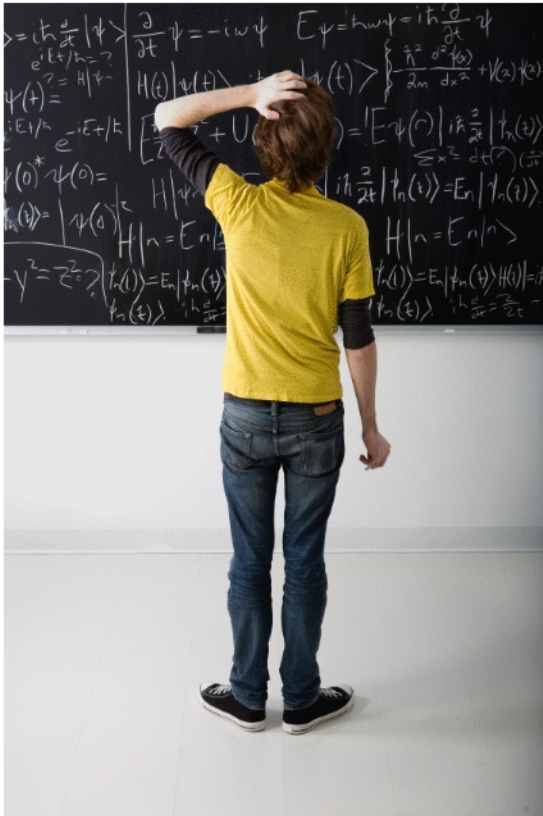
$$\text{Also } \frac{1}{H_1} = \frac{1}{a} + \frac{1}{3} \left(\frac{1}{b} - \frac{1}{a} \right) \Rightarrow H_1 = \frac{3ab}{2a+b}$$

$$\text{and } \frac{1}{H_2} = \frac{1}{a} + \frac{2}{3} \left(\frac{1}{b} - \frac{1}{a} \right) \Rightarrow H_2 = \frac{3ab}{2a+a}$$

$$\Rightarrow \frac{A_1 + A_2}{H_1 + H_2} = \frac{a+b}{3ab \left(\frac{1}{2b+a} + \frac{1}{2a+a} \right)} = \frac{(2b)}{3ab \left(\frac{1}{2b+a} + \frac{1}{2a+a} \right)}$$

2. Let $P(n) : (25)^{n+1} - 24n + 5735$
 For $n=1$, $P(1) : 625 - 24 + 5735 = 6336$
 which is divisible by 24^2
 Hence $P(1)$ is true
 Let $P(k)$ be the true, where $k \geq 1$
 $\Rightarrow (25)^{k+1} - 24k + 5735 = (24)^2 \lambda$ where
 For $n = k+1$
 $P(k+1) : (25)^{k+2} - 24k + 5735$
 $= 25[(25)^{k+1} - 24k + 5735] + 25$
 $= 25((24)^2 \lambda) + (24)^2 k - 5735 \times 24 + 25$
 $= 25((24)^2 \lambda) + (24)^2 k - (24)(5736)$
 $= 25((24)^2 \lambda) + (24)^2 k - (24)^2 (239)$
 $= (24)^2 [25\lambda + k - 239]$
 which is divisible by $(24)^2$





- 1 Highly confident
- 2 Confident
- 3 Little bit confident
- 4 Little bit unsure
- 5 Unsure
- 6 Highly Unsure

Case Study - Literacy

Queen Elizabeth College - New Zealand



Underachieving literacy group
Key issue - motivation



Case Study - Literacy

Queen Elizabeth College - New Zealand

Informal - anonymous

Formal - assessment

600 Percent increase in learning rate

Motivation



Learner Response Systems - emotion and motivation

When used properly

No student is left behind

Students control the pace of learning

With control comes positive emotion

Positive emotion boosts motivation





Question...?

- A Option 1
- B Option 2
- C Option 3
- D Option 4

The screenshot shows the ActivInspire software interface. The main window displays a quiz question: "Who was the first man in space?" with six multiple-choice options: A: John Glenn, B: Yuri Gagarin, C: Neil Armstrong, D: Alan Shepherd, E: Pavel Chekov, and F: Buzz Aldrin. To the right of the text is a detailed 3D rendering of a space capsule. The interface includes a menu bar at the top with options like File, Edit, View, Inset, Tools, and Help. A toolbar on the right side contains various drawing and editing tools. At the bottom, there is a taskbar with the Windows Start button and several open applications. The footer of the software displays "The ActivClassroom by PROMETHEAN".