
BBC LEARNING ENGLISH

Take Away English 随身英语



Inside a teenager's brain 了解青少年的大脑发育过程和特点

Vocabulary: adolescence 词汇: 青春期

What were you like as a teenager? I was a **nightmare**. I was rude to my parents, always stayed out late, never did my homework, hung out with the wrong people and made lots of bad decisions. Apparently, this is the age when teenagers are **out of control** and behave badly. Maybe, if you're a teenager now, you think this is unfair criticism or it's not your fault. Well, you might be right!

Experts have found that it's a teenager's brain that is to blame. Between the ages of approximately 13 to 19 - a period known as **adolescence** - the brain is still developing in areas that control behaviour. This has an impact on learning and **multitasking**, stress and memory, sleep, addiction, and decision-making. For parents, these consequences often manifest themselves in a variety of behaviours that they may have previously blamed on **hormones** or just **moodiness**.

This is quite a new discovery, according to Professor Sarah-Jayne Blakemore, who, speaking on the BBC radio programme *The Life Scientific*, says "when I was at university, the **dogma** in the text books was that the vast majority of brain development goes on in the first few years of life and nothing much changes after mid-childhood. That dogma is completely false."

So our brains are still developing much later than was originally thought. Is this the perfect excuse for teenagers to **lounging around** and not get their homework done on time? Of course not! According to Professor Sarah-Jayne Blakemore, it's to do with our **prefrontal cortex** - that's the part of our brain right at the front, just behind the forehead. She says "it's involved in a whole range of very high-level **cognitive tasks** such as decision making and planning - we know that this region is undergoing very very large amounts of development during the **adolescent** years". This is the part of the brain **critically** involved in planning, and, for a teenager, this hasn't developed yet. So getting organised to do their homework, for example, can come as a bit of a challenge.

I wish I'd known about this because instead of telling my teacher I'd left my homework on the bus or that the dog had eaten it. Now I could say, "Sorry sir, my brain isn't developed enough for the cognitive task of planning my homework".

词汇表

nightmare	“噩梦”，棘手的人或事
out of control	失控
adolescence	青春期
multitasking	同时做多件事情
hormone	荷尔蒙
moodiness	情绪多变，喜怒无常
dogma	教条
lounge around	悠闲度日
prefrontal cortex	前额皮层
cognitive task	认知任务
adolescent	青春期的，青少年的
critically	极其地

测验与练习

1. 阅读课文并回答问题。
 1. During adolescence, what is thought to be happening to the area of the brain that is controlling behaviour?
 2. How have ideas about early brain development changed?
 3. What tasks does the prefrontal cortex part of the brain affect?
 4. True or false? *It's hard for teenagers to get organised because the part of the brain needed to do this is still developing.*
 5. Which word used in the article means 'to become clear through signs or actions'?

2. 请在不参考课文的情况下完成下列练习。选择一个意思合适的单词填入句子的空格处。

1. Our journey was a _____. First we got stuck in a traffic jam and then our car broke down!

dogma	nightmare	cognitive task	out of control
-------	-----------	----------------	----------------

2. It's _____ important that we sign the contract today, otherwise we will lose the business.

critical	critically	critically	criticise
----------	------------	------------	-----------

3. We're blaming our son's behaviour on his _____; it can't be anything else can it?

adolescent	dogma	nightmare	hormones
------------	-------	-----------	----------

4. I've got a day off work today so I'm just going to _____ and watch TV.

lounge around	lounge around	round lounge	lounge up
---------------	---------------	--------------	-----------

5. Some businesses feel the pressure to change smoking laws has been driven more by _____ than hard facts.

moodiness	multitasking	dogma	cognitive tasks
-----------	--------------	-------	-----------------

答案

1. 阅读课文并回答问题。

1. During adolescence, what is thought to be happening to the area of the brain that is controlling behaviour?

Between the ages of approximately 13 to 19, the brain is still developing in areas that control behaviour.

2. How have ideas about early brain development changed?

They have changed from thinking that the vast majority of brain development goes on in the first few years of life and nothing much changes after mid-childhood, to the idea that brain development continues through adolescence.

3. What tasks does the prefrontal cortex part of the brain affect?

It affects us performing cognitive tasks such as decision making and planning.

4. True or false? *It's hard for teenagers to get organised because the part of the brain needed to do this is still developing.*

True. The prefrontal cortex is the part of the brain critically involved in planning, and, for a teenager, this hasn't developed yet. So getting organised to do their homework, for example, can come as a bit of a challenge.

5. Which word used in the article means 'to become clear through signs or actions'?

The word is 'manifest'. "For parents, these consequences often manifest themselves in a variety of behaviours that they may have previously blamed on hormones or just moodiness."

2. 请在不参考课文的情况下完成下列练习。选择一个意思合适的单词填入句子的空格处。

1. Our journey was a **nightmare**. First we got stuck in a traffic jam and then our car broke down!

2. It's **critically** important that we sign the contract today, otherwise we will lose the business.

3. We're blaming our son's behaviour on his **hormones**, it can't be anything else can it?

4. I've got a day off work today so I'm just going to **loung** **around** and watch TV.
5. Some businesses feel the pressure to change smoking laws has been driven more by **dogma** than hard facts.