

- 1 **SPEAKING** Look at the photos and discuss statements 1–4. Do you agree with them?
- 1 Small children take more risks than teenagers.
 - 2 Boys take fewer risks than girls.
 - 3 Teenagers often take risks when they want to be part of a group.
 - 4 Seventeen-year-olds take more risks than younger teenagers.
- 2 Read the article. What does the author think about the statements in exercise 1? Has the article changed your opinion of any of them?

STRATEGY**Understanding pronoun referencing**

When you read, notice the pronouns and think about what they refer to. Understanding pronouns will help you to understand the text. Pronouns can refer to:

■ a word ■ a phrase ■ a whole sentence or idea

- 3 Read the strategy. Study the bold pronouns in the article. What do they refer to?

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|------------------|-------------------|
| 1 This (line 5) | 5 it (line 21) |
| 2 they (line 10) | 6 This (line 22) |
| 3 that (line 16) | 7 they (line 28) |
| 4 it (line 19) | 8 their (line 32) |

- 4 Match sentences A–G to gaps 1–5 in the article. There are two sentences that you do not need.

- A 'I just felt like it.'
- B Have you ever taken a risk to impress your friends?
- C You can get your dopamine fix in lots of other exciting ways.
- D They encourage us to take more risks.
- E Check out the latest theories and what you can do about it.
- F What has dopamine got to do with you?
- G Girls don't show off very often.

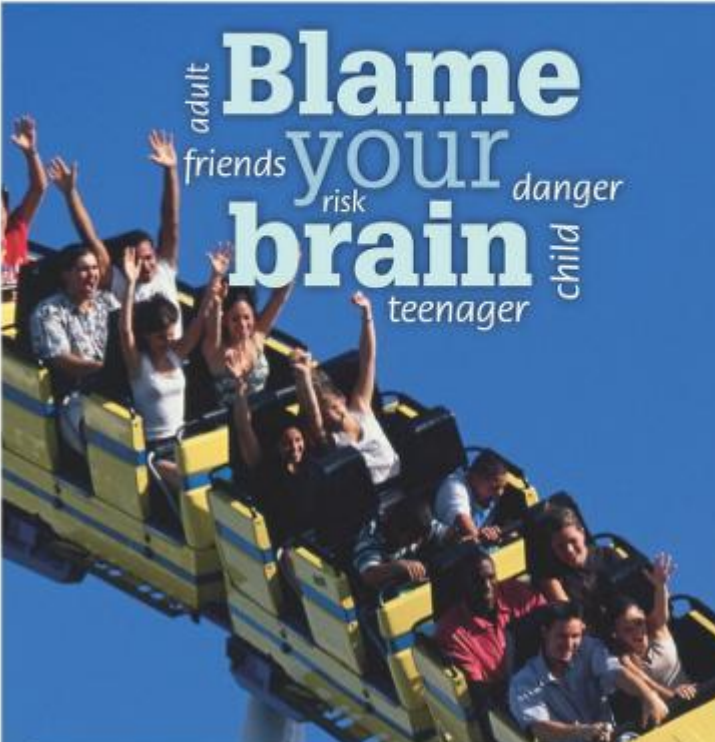
Vocabulary bank Generations page 138

V insight Adjective suffixes: -ing and -ed

- 5 Study the highlighted words in the article. Find the adjective forms of the verbs below. Then answer the questions.

■ excite ■ frighten ■ amaze ■ surprise ■ embarrass

- 1 Which adjectives describe how someone feels?
- 2 Which adjectives describe what someone or something is like?



Blame your brain

adult friends risk danger child teenager

It's a fact: many teenagers take more risks than children and adults. The question is, why? ¹

The 'wow' factor

Have you ever been on a rollercoaster ride? How did you feel when you got off? **Excited?** **Amazed?** **This** is the 'wow' factor, the feeling of pleasure we get when we take and survive a risk. Scientists know that a brain chemical called dopamine causes this feeling of enjoyment. ² Well, some scientists believe that dopamine levels are sometimes lower in adolescence than **they** are in childhood. This means that some teenagers might need to take more risks to get the same 'wow' factor.

'I just felt like it'

Have you ever done something dangerous or **frightening** without thinking about what happens next? When an adult asks a teenager, 'What were you thinking of when you did **that?**' a common reply is, ³ But the question misses the point, because the point is that the teenager might not have been thinking at all! The teenager had no intention of taking a risk, **it** just 'happened'. A few years ago, scientists made a **surprising** discovery: the teenage brain goes through many physical changes, and some parts of **it** develop later than others. The last part to fully develop is the frontal cortex. **This** is the area of the brain which allows us to do things such as controlling emotions and making good decisions.

This passage is heavily adapted from a section of *Blame My Brain – The Amazing Teenage Brain Revealed* by Nicola Morgan. Nicola Morgan is not responsible for the wording of this passage. For a clear understanding of the science, readers should refer to the original book.

LIVEWORKSHEETS