The science of having PASSION

A We all know someone who has a passion in life – something they seem to live and breathe every day. Having a passion like this can give a person energy and drive, but why is this? What is the science behind people's passions, and how can having a passion benefit us in our daily lives?

B Doing something we are passionate about has a surprising effect both on our brains and our body chemistry. The nucleus accumbens, an area of the brain which plays a central role in the human body's reward system, lights up and then releases feel-good hormones into the bloodstream when we do something we love. This, in turn, gives us drive; it helps us to push through when things get hard because we're so committed to the activity. It helps us to get extraordinary things done.

C One such astonishing thing is the ability to cope with physical problems that would normally prevent us from carrying on. According to clinical psychologist Dr David Holmes, passion, and the chemical response of our bodies when we feel it, can help us deal with enormous pain. This is undoubtedly the reason why, every now and then, sportspeople finish a match on top of the world only to later discover they've actually broken a bone halfway through. It's only when their chemical responses to the joy of playing disappears that they realise what's happened.

D One man who recognised the importance of passion was Leonardo da Vinci. Renowned for his many achievements, he wrote 500 years ago that: 'It had long since come to my attention that people of accomplishment rarely sat back and let things happen to them. They went out and "happened to things".' Da Vinci 'happened' to plenty of things. He painted the *Mona Lisa*; in his journals were the ideas for inventions such as steam cannons and even helicopters. He was an anatomist, a sculptor and a musician. Although we think of someone like da Vinci as being driven by a force of genius, what he said was that truly successful and ambitious people like him make it their life's work to follow their passions.

E According to Dr Holmes, we should all be attempting to make our passions an important part of our lives. He adds: 'Passion is what can make a good day really great. To be happy, we need plenty of those.' But it isn't always easy. Passion is incredibly personal. You have to do something that has meaning to you as an individual – you can't get it from following someone else's passions or dreams, or by merely going through the motions. 'For one person, that sense of satisfaction might come from completing a marathon; for another, it could be finally tracking down a first-edition book they have spent years searching for.'

> "Passion is what can make a good day really great."

F In recent years, researchers have been trying to prove whether a passion can lead to greater happiness but they have so far been unable to do so. This is down to the fact that participants in studies are usually asked to self-report their own emotions in questionnaires. Such self-assessment is a cheap and simple way to collect data, especially if you want to get information from a very large number of people. However, it relies on participants being honest, as well as interpreting levels of happiness and passion in the same way. So, although we might feel that having things we enjoy is beneficial, unfortunately, science hasn't confirmed this yet.

G However, scientific techniques are improving as we speak, so hopefully one day researchers will be able to show that our passions affect not just our happiness but also our ability to do well in all aspects of our lives. We will hopefully discover that our passions allow us to feel more energised and able to cope with the stresses of everyday life. We may find out that our passions help us to cope with activities we typically don't enjoy, allowing us to achieve more in a wider range of areas. Wouldn't it be great if we could prove that spending your weekends on the football pitch could actually improve your maths grades? In the meantime, we'll have to make do with knowing that our passions can provide the drive we need to get up and enjoy life.

LIVEWORKSHEETS

4 **e** **Read the article and choose the answer (A, B, C or D) which you think fits best according to the text.**

1 In paragraph B, the writer suggests that the *nucleus accumbens* directly contributes to people
- **A** feeling emotional.
- **B** developing strengths.
- **C** overcoming difficulties.
- **D** attempting a range of tasks.

2 According to Dr Holmes in paragraph C, chemicals in our body stop us
- **A** participating in sport.
- **B** feeling discomfort.
- **C** experiencing pleasure.
- **D** getting injured.

3 The writer mentions Leonardo da Vinci to make the point that
- **A** good things come to brilliant people.
- **B** creative people do many activities.
- **C** clever people are passionate people.
- **D** successful people pursue their interests.

4 What does Dr Holmes suggest people do to make life positive?
- **A** set a goal and work towards it
- **B** copy other people's hobbies
- **C** discover what interests them
- **D** identify what prevents achievement

5 Evidence connecting interests and happiness has been weak in research studies because
- **A** too few people were asked to complete the questionnaire.
- **B** participants assessed their own feelings of satisfaction.
- **C** the questionnaires were too complicated to complete.
- **D** they represented people who were already motivated.

6 The author is optimistic that future research will prove a link between passions and
- **A** a reduction in poor health.
- **B** an improvement in productivity.
- **C** a greater desire to be successful.
- **D** a better performance in a variety of tasks.

5 **Find words or phrases in the article that mean the following.**

1 determination and energy to succeed (para A)
2 great and unusual intelligence, ability or skill (para D)
3 find by searching for a long time (para E)
4 full of enthusiasm (para G)

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