



ENGLISH B – STANDARD LEVEL – PAPER 1 ANGLAIS B – NIVEAU MOYEN – ÉPREUVE 1 INGLÉS B – NIVEL MEDIO – PRUEBA 1

Monday 12 November 2012 (afternoon) Lundi 12 novembre 2012 (après-midi) Lunes 12 de noviembre de 2012 (tarde)

1 h 30 m

#### TEXT BOOKLET - INSTRUCTIONS TO CANDIDATES

- Do not open this booklet until instructed to do so.
- This booklet contains all of the texts required for Paper 1.
- Answer the questions in the Question and Answer Booklet provided.

### LIVRET DE TEXTES – INSTRUCTIONS DESTINÉES AUX CANDIDATS

- N'ouvrez pas ce livret avant d'y être autorisé(e).
- Ce livret contient tous les textes nécessaires à l'Épreuve 1.
- Répondez à toutes les questions dans le livret de questions et réponses fourni.

### CUADERNO DE TEXTOS - INSTRUCCIONES PARA LOS ALUMNOS

- No abra este cuaderno hasta que se lo autoricen.
- Este cuaderno contiene todos los textos para la Prueba 1.
- Conteste todas las preguntas en el cuaderno de preguntas y respuestas.

## How predictive texting affects a child's brain



Predictive text messaging changes the way children's brains work and makes them more likely to make mistakes in other aspects of life, a study

has found. Scientists say the system, which involves pressing one key per letter before the phone works out what word the user wants to type, trains young people to be fast but inaccurate. They claim this makes children tend to be impulsive and thoughtless in everyday life.

Modern mobile phones come with a built-in dictionary which enables predictive texting. This differs from an older system in which users had to hit keys several times per letter. But it can lead to embarrassing miscommunications because some words use the same keys.

Professor Michael Abramson, a doctor who carried out the research, said: "The children who used their phones a lot were faster on some tests but were less accurate. We suspect that using mobile phones, particularly tools like predictive text, causes this. Their brains are still developing so if there are adverse effects, potentially they could have an impact later on. The use of mobile phones is changing the way children learn and pushing them to become more impulsive in the way they behave." He added that the effects could have dangerous consequences for a whole generation.

Professor Abramson believes functions such as predictive texting pose a risk for those whose brains are still developing. "If you're used to entering a couple of letters and getting the word you want, you expect everything to be like that," he said.

Previous research has shown that predictive texting makes people puzzled about spelling. This research also says that some of the mistakes due to words sharing the same keys have been turned into a slang language by teenagers. They can be heard describing something as "book" when they mean it is "cool", for example.

Image: From: http://en.wikipedia.org/wiki/File:Texting.jpg
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### The Helm Wind

Mr Robert Smith of Somerset, England, asked why many local winds in various parts of the world have their own special names, such as the Mistral in France, but Britain seems to have none.

In fact, there is one – the Helm Wind. This is a quite spectacular wind that roars down from Cross Fell, the highest point in the Pennine Hills in the north of England. The wind rushes down the mountain, sometimes for days on end, hitting any walkers who dare to venture into its path.

According to legend, the Helm Wind believe to defeat a French army in the days of William the Conqueror, when it blew the French cavalry off their horses and gave the English an unexpected victory.

20 The Helm Wind originates on the eastern slopes of the Pennine Hills before it rushes down Cross Fell, often reaching extreme force in violent gusts. But by the time the wind reaches the valley bottom a few miles below, it is

largely exhausted and conditions there can be remarkably calm. It finally stops when it no longer blows from the east.

The wind can be seen for miles around

30 because a telltale bank of clouds, the Helm Cloud, hugs the top of the hills like a helmet. Many people regard this as the origin of the name "Helm Wind". Another theory claims 35 that the name comes from "helm" a local word for the peak of a mountain. Though the first suggestion is more poetic, the second seems more likely. Several miles farther down

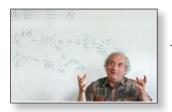
the valley there is another interesting phenomenon. There is often a long roll of cloud, called the Helm Bar, which gently rotates in the sky as the air currents take effect. This is created

from turbulence as air rises and sinks in a wave to create a rolling cloud, rather like the way a fast river sets off high waves when it hits shallows. The distance between the Helm Cloud

50 and the Helm Bar depends on the air pressure and temperature.

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### **TEXT C**



# Mathematician finds magic in numbers

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The 64-year-old shuffling\* a pack of cards was five when he discovered a book of magic in the attic and started doing tricks. Persi Diaconis is still doing tricks but today they have a wider purpose than mere entertainment.

- Now teaching at California's Stanford University, Diaconis has used maths and playing cards to produce tricks that have fooled other magicians. Diaconis is hooked mostly, though, on randomness and probability, using mathematics to solve such concepts as how often a pack of cards must be shuffled before it is truly random.
- As a youngster growing up in Manhattan, Diaconis loved magic. He would hang out at cafés where magicians gathered, until along came the chance of a lifetime. One day Dai Vernon, one of the most respected magicians in the world, saw Diaconis practising his shuffling. Vernon was sitting with the other magicians, but he called Diaconis over to demonstrate his shuffling, which involved keeping the ace of spades at the top of the pack. He said, "This kid can do that, and none of you can do that". He added, "Now why don't you guys practise like that? Son, from now on you can sit with us".
- The pair became friends and when Diaconis was 14, Vernon invited him on the road. Diaconis became the magician's apprentice. They drove from city to city and Diaconis learnt everything he could from the older man. In his 20s, he was accepted into Harvard University and has specialised in probability theory and statistics or the mathematics of randomness.
- Diaconis often has a go at [-X-] the Riemann Hypothesis. It's one of mathematics' so-called \$1 million Millennium problems, of which there are seven. If mathematicians solved any of these problems, they would win \$1 million. He [-19-] that someone will [-20-] find the answer. "That [-21-] happening. There is something that's been a [-22-] since the Greeks, and then somebody figures it out."

Text: 'Mathematician finds magic in numbers'. Author: Catherine Masters Date: Saturday 16 January 2010. Used with the permission of the *New Zealand Herald*. Photo: © *New Zealand Herald*. Used with permission

<sup>\*</sup> shuffling: using your hands to rearrange the order of cards

### **TEXT D**

### I JUST GOT MY LICENSE

Congratulations! You're officially part of the club. Here are a few tips to keep you both sane and safe.

### **Know Your Limits**

As a new driver, the key is to make sure you are extra-careful and fully aware of all of your driving habits.

- **Obey all traffic rules.** This includes wearing a seat belt at all times, coming to a complete stop at all red lights and obeying speed limits.
- **Keep alert.** Keeping alert doesn't simply mean paying attention, it means eliminating any factors that might detract from reaction time. Alcohol has been shown to reduce judgment, driving ability and alertness.

Responsible driving can also help you save money. A good driver is less likely to pay money for car repairs and increased insurance premiums than a risky or bad driver.

### Know Other People's Limits

It's important to be aware of your surroundings. For instance, when a light turns green, make sure the intersection is clear before you go; someone may run a red light and be headed for you.

- **Maintain a safe following distance.** If you're too close to someone else you won't be able to react in time if they lose control in front of you or slam on the brakes.
- **See the future.** This means recognizing and anticipating potential dangers before they develop. If someone three cars ahead of you brakes, know that you'll probably also have to stop.

Driver training never ends. So consider taking a driving course every few years to keep your knowledge and safety skills fresh. Not only will this help you sharpen your driving skills, it may save you some money on car insurance. It could also show your parents you're serious about being a good driver.

### **Know Your Car**

Taking care of your car ensures that it's in good condition and functioning properly. Many breakdowns occur because drivers neglect routine maintenance, and breakdowns are expensive. Try getting familiar with:

- · pumping gas
- · keeping track of maintenance schedules
- · checking and changing oil.

Practice makes perfect. So get out there and drive, keeping safety first.

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