

--	--	--	--

(請填入甄選證號碼)

臺北市立第一女子高級中學

109學年度科學班甄選入學

語文能力檢定試題本

請不要翻到次頁！

讀完本頁的說明，聽從監試委員的指示才開始作答！

※請先確認你的答案卷、甄選證與座位號碼是否一致無誤。

測驗說明：

這是北一女中科學班甄選入學語文能力檢定試題本，內容包含國文與英語，提供答案卷2本，請分科作答。測驗時間從15：20到17：00，共100分鐘。作答開始與結束請聽從監試委員的指示。

注意事項：

1. 每節甄試說明時間內，提前翻閱題本、提前作答，經制止不從者，該節甄試科目不予計分。
2. 每節甄試正式開始後15分鐘起，遲到者不得入場。若強行入場，該節甄試科目不予計分。
3. 每節甄試正式開始30分鐘內，不得提早離場。若強行離場，不服糾正者，該節甄試科目不予計分。
4. 依試場規則規定，答案卷上不得書寫姓名座號，也不得作任何標記。故意汙損答案卷、損壞試題本，或在答案卷上、作答內容中顯示自己身分者，該節甄試科目不予計分。
5. 依試場規則規定，語文能力檢定作答時，務必使用藍、黑色墨水的筆，不得使用鉛筆。更正時，可以使用修正液（帶）。如有書寫不清或汙損等情事，致無法清晰呈現作答結果者，其責任由考生自負，不得提出異議。
6. 依試場規則規定，語文能力檢定作答時，不得要求增加答案卷作答。
7. 請於答案卷上作答，如需擬草稿，請使用試題本中之空白頁。

請聽到鐘（鈴）響起，於試題本右上角方格內填寫甄選證號碼，再翻頁作答

國文試題

閱讀以下文字，依序回答問題(一)、問題(二)。

許多父母望子成龍，因此常常會對子女過度要求，或者過度鼓勵。我有個兒子七歲時去游泳，一開始游得不太好，游了四圈就累到不行，一直想離開游泳池，但我太太鼓勵他：「你可以的，你的能力和肌力絕對沒問題！」小孩回答：「我累了，手也好痠。」我的太太繼續說服他：「你絕對做得到，你是最好的游泳健將。」於是他被說服了，繼續游第五圈。游完後，他高興的跳起來說：「我真的游完五圈了！我的同學都做不到。」後來，他得到了游泳冠軍。

我跟太太說，這樣的要求已經超出他的能力，但太太認為，這就是成長的過程，一定要讓孩子做超出能力的事，他才會激發潛能，變成最優秀的人。

另一個兒子常跟著我滑雪，太太跟他說：「你完全沒有發揮該有的潛能，你可以滑得更好。」所以她就帶他到最危險的高山，從直升機上跳下來滑雪，當時他才十一歲。後來，他得到了全美青少年滑雪冠軍。我太太得意的說：「你看我把他的能力推到極限，他真的成功了！」但我的兩個兒子都是超出原本的能力在做事。

滑雪道或游泳池都是相對安全的人工環境，周邊有保護措施與救護人員，所以做超出能力的事並不會引起無法收拾的後果，還讓我們誤以為這樣做就會得到很好的成績。但在現實的社會或職場，面對的往往是一片荒野、一片汪洋，且無人在旁及時救援，一旦超出能力做事，常常會造成重大損失與傷亡。因此，我們應該提醒孩子，當遇到超出能力的事情時，可以先請教其他人，或是靜下心來分析風險，想想因應對策，再採取行動。

(改寫自邱強〈知識型錯誤〉)

問題(一)：根據上文，分別歸納出母親與父親對於孩子的教養主張。至多 6 行。

(占 12 分)

問題(二)：在學習的過程中，我們領受過不同的教育方式，有時嚴厲，有時溫和。

根據你個人和父母、師長相處的經驗，以「關於學習，我需要的是□□」為題(□□內請自行填入適當的詞語，如：支持、放手、引導、規劃等等，□□內的詞語不限字數)，書寫一篇段落分明、首尾完整的文章，文長 400 字以上。(占 38 分)

試題結束

英語試題

作答提示：

請根據題組內容，在答案卷上用英文寫出正確、完整的答案
(英翻中除外)

題組一：16分

Scientists have long known a fairly reliable way to extend life span in lab animals: Make the number of calories they eat less by 10 percent to 40 percent. This way, known as caloric restriction, has been shown to increase the life span of many animals and lower their rate of cancer and other age-related illnesses. **Whether it can do the same in people has been an open question.** But a new study finds that in young and middle-aged people, chronically restricting the calories they take in can make them healthier.

In this new study, researchers looked at a group of 143 healthy men and women between 21 and 50. **They** were asked to practice caloric restriction for two years. They could eat the foods they wanted as long as they made the total amount of food they ate less, with the goal of cutting the calories they had by 25 percent.

Many people could not do it. The average calorie cut was 12 percent. That was about 300 calories a day. That number of calories was in a large bagel, or a few chocolate chip cookies. But it worked. Those who practiced calorie cut lost weight and body fat. Their cholesterol levels got controlled, their blood pressure fell a little, and they had better blood sugar control and less inflammation. Moreover, scientists also found that the calorie-restricted group reported better sleep, more energy and better mood. At the same time, a control group of 75 healthy people who did not practice caloric restriction saw no better change in their health.

Caloric restriction may be a useful tool for better health and weight loss, but it is unclear whether **it** could extend life span in humans the way that it can in other animals. The researchers would have to keep people on the diet and follow them for many years to test that.

But in the end, caloric restriction does do good to people, especially as they get older.

 reliable 可靠的 extend 延長 life span 壽命 calorie 熱量
chronically 長期地 restrict 限制 average 平均
cholesterol 膽固醇 inflammation 發炎

1. (T / F) The new study found that middle-aged people became healthier than young people by restricting the calories they took in.
2. According to this passage, which of the following did **NOT** happen to people who practiced caloric restriction?
 - (A) They lived longer.
 - (B) They slept well.
 - (C) They became happier.
 - (D) They had more energy.
 - (E) They controlled their blood sugar better.
3. Where can this passage most likely be found?
 - (A) In a medical dictionary.
 - (B) From a health magazine.
 - (C) In a chemistry textbook.
 - (D) In a business newspaper.
 - (E) On the website of Animal Planet.
4. Please translate the sentence into Chinese: “**Whether it can do the same in people has been an open question.**”
5. What does the word **they** in the 2nd paragraph mean?
6. What can restricting the number of calories help lab animals to do?
7. In their study, how did the researchers make comparisons and know if caloric restriction worked with people?

 comparison
比較

(For questions 5-7, please answer in complete sentences.)

題組二: 16 分

Any piece of plastic less than 5 millimeters in size is thought a microplastic. Microplastics can come from small beads found in skincare products and microfibers from clothing with each wash.

Microplastics have been found everywhere, from the coast of Spain to the Yangtze River in China. It is probably not surprising that microplastics are found in our drinking water, too. In some research, microplastics were found in 83% of the tap water samples which were tested all over the world. The United States had the highest rate—94% of water samples. The lowest rates were found in Germany and France, although those “low” values were still rates of 72%. Think you can avoid it by drinking only bottled water? Think again. Microplastics are found in bottled water at rates twice as high as in water straight from the tap. Therefore, it is only natural that microplastics can be found in human bodies. In an analysis of **stool** samples from volunteers in Europe, Japan, and Russia, scientists found an average of 20 pieces of plastic in every 10 grams of poop.

Microplastics may hurt both people and animals. Scientists think that, because of their small size, microplastics are able to enter our blood, our lymphatic systems, and even our livers. Studies of birds have shown that ingesting plastic affects iron absorption, stresses the liver, and even goes so far as to change the shape of parts of the small intestine.

In 2015, President Obama signed the Microbead-Free Waters Act of 2015, which did not allow microplastic beads in personal care items. As for us, we can cut out one-use plastics as much as we can. We can also pick up larger plastic trash in our neighborhood so it doesn't break down into smaller pieces and end up as microplastics in our water and food. Such hard work is a first step to fighting the microplastic problem.



volunteer 自願者 lymphatic system 淋巴系統
ingest 攝取 small intestine 小腸

1. (T / F) Germany and France are among the few countries that do not have microplastics pollution.

2. What is the purpose of the passage?

 purpose 目的

- (A) To show different types of microplastics.
- (B) To help countries that have plastics in their water.
- (C) To point out the danger which sea animals are facing.
- (D) To give people an idea about microplastics pollution.
- (E) To tell people how microplastics get into human bodies.

3. What can we learn from the passage?

- (A) Microplastics hurt the growing of plants.
- (B) Microplastics keep our blood from moving fast.
- (C) The pollution of microplastics in the U.S. is the most serious.
- (D) More microplastics were found in animals than in human bodies.
- (E) The Microbead-Free Waters Act plans to make microplastics fewer on earth.

4. Which has more microplastics, tap water or bottled water?

5. Which word in the 2nd paragraph has the same meaning as **stool**?

 source 來源

6. What do microplastics talked about in the passage come from?

Please write down two sources.

7. According to the passage, list two examples of how people can fight the microplastic problem?

(For questions 4-7, please answer in complete sentences.)

題組三: 18 分

Energy drinks full of caffeine are making Aussie teens have less sleep, an important new study shows. And experts want advertising of the products banned on public transport.

A Cancer Council Australia's study of more than 9,000 students across the country found teenagers who drank energy drinks at least once a week were twice as likely to get less than eight hours of sleep on a school night than those who didn't.

Around 1 in 14 teenagers said they had energy drinks at least weekly and one in four had had energy drinks at least once. The study also showed teenage boys were much more likely than teenage girls to have energy drinks every week.

The Sleep Health Foundation says teenagers need 8-10 hours of sleep, more than adults, because their bodies and cognition are growing fast. Sleep is very important for the mental health of teens and not enough sleep can lead to acne, aggressive action and unhealthy eating habits.

Craig Sinclair, the Head of Prevention at Cancer Council Victoria, said energy drinks also contain large amounts of sugar that is leading to weight gain among teenagers. The same study found 17% teenagers have at least 5.2kg of sugar each year from sugary drinks only. This can lead to overweightness, heart disease, and some cancers.

The amount of sugar in energy drinks is double the amount of sugar in soft drinks. Moreover, the sugar amount of a 500ml bottle of energy drinks is three times the recommended daily limit for added sugar in the diet.

The amount of caffeine in the drinks is also high and the study showed how it makes teenagers unable to sleep well. The truth is that energy drinks contain twice as much caffeine as a cup of coffee or a 500ml bottle of cola.

Cancer Council Victoria is worried about the heavy advertising of energy drinks at music activities and other youth events. "We should be restricting the advertising of these products on government transport, railways and near schools," Mr. Sinclair said.

<p>📖 advertising 廣告 ban 禁止 transport 運輸 cognition 認知 mental 心理的 lead to 造成 acne 青春痘 aggressive 侵略性的 contain 包含 recommend 建議</p>

1. (T / F) 25% of the students in the study had the experience of drinking energy drinks before.

2. Which of the following is **NOT** talked about in the passage?
- (A) How often teenagers had energy drinks.
 - (B) What health problems energy drinks lead to.
 - (C) How many students are studied in the research.
 - (D) What energy drinks companies plan for the future.
 - (E) How teenage boys and girls differ in having energy drinks.
3. Which of the following is **NOT** given as a reason that enough sleep is important to teenagers?
- (A) It helps their mental health.
 - (B) It stops them from having acne.
 - (C) It helps them lose weight quickly.
 - (D) It helps the growing of their cognition.
 - (E) It keeps them from having unhealthy eating habits.
4. If the amount of sugar in a 500ml bottle of energy drinks is as much as 21 teaspoons of sugar, what is the recommended daily limit for added sugar in the diet?
5. If the amount of caffeine in a cup of coffee is 100mg, how much caffeine do energy drinks contain?
6. What health problems may having a lot of sugar lead to?
7. According to Mr. Sinclair, where should advertising of energy drinks be restricted?

(For questions 4-7, please answer in complete sentences.)

試題結束