

- 专门用途英语课程系列

新时代大学学术英语综合教程 上册

教师用书

**New Era Academic English
Integrated Course**

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序 言

外语教学是为国家发展战略服务的。目前，我国经济和社会发展进入了新时代，对国际化人才的需求远胜于以前任何一个时代。为迎接这一挑战，在我国高等教育领域和科研领域，英语作为国际通用语（English as a Lingua Franca）的概念得到越来越多的关注，这使得用英语作为工具获取各类学术信息、进行国际学术交流的功能得到重视；同时，“以英语为媒介的教学”（English as Medium of Instruction）在各个高校也得以日益广泛地实施。在这一时代背景下，高校学术英语教学的必要性进一步凸显出来。

“新时代大学学术英语”系列教材正是针对新时代的要求，贯彻《国家中长期教育改革和发展规划纲要（2010—2020）》和《大学英语教学指南》的精神，遵循我国高校公共英语教学发展的基本规律，围绕高等教育国际化人才培养这一根本目标开发而成，其立足高校公共英语教学实践的基础，在设计与编写中引入先进的教学理念，融合各类优质教学资源，推动大学英语教学进入新阶段。

在课程目标方面，本系列教材关注学习者学术能力的培养，通过学习材料和课堂活动的设计，在提高学习者英语综合应用能力的同时，培养其交际能力（communication）、协作能力（cooperation）、批判性思维（critical thinking）和创新能力（creativity）；本系列教材编写过程中注重学习者能动性的发挥，贯彻“以教师为主导，以学生为主体”的教学理念，充分考虑学生的专业学习需求、知识结构和认知水平，选取难度适宜的学习材料，同时在练习设计方面做到丰富多样，鼓励学习者主动参与到学习过程中去，提高学习效果。教材的编写和学习材料的呈现方式，更加有利于教师采用探究式协作学习来完成教学任务，促进教学活动的重点由“教”转向“学”。

“新时代大学学术英语”系列教材充分利用信息技术给教育模式带来的变革，通过学习网站建设、慕课和微课制作等方式创建数字化课程学习平台，开拓交互式开放性的移动学习功能，以多模态形式呈现学习资源和学习任务，实现教学资源的立体化建设，满足学习者在新技术条件下的个性化学习需求。

“新时代大学学术英语”系列教材属于通用学术英语教材，涵盖了通用学术英语的听、说、读、写、译等各个方面；本系列教材由《综合教程》、《阅读教程》、《听说教程》组成，每种教程均有上册和下册两册。纸质教材包括学生用书和教师用书，并配有丰富的数字教学资源 and 平台，便于师生采用融合式教学模式进行教学。

韩金龙
2018年7月

编者的话

目前大学英语教学改革的重要目标之一是能够切实提高大学生的英语综合应用水平和直接使用英语从事科研的能力，这在很大程度上推动了大学学术英语（EAP）教学的发展。《大学英语教学指南（征求意见稿）》已经把学术英语列入了大学英语教学的内容。

《新时代大学学术英语综合教程》是以通用学术英语为主要教学目标的大学英语教材，适应我国目前大学英语课程的发展方向。本教程旨在培养学生的听、说、读、写、译等通用学术英语能力，适合各类专业大学生使用。

本教程的培养目标

通过学习《新时代大学学术英语综合教程》，学生能够具备以下学术英语素养：

一、学术阅读能力

在掌握阅读学术文本时所需的阅读策略的基础上，识别较复杂文章的结构，区分文章的事实和观点，辨别较隐晦的作者立场与观点，判断信息来源的可信性等。能读懂篇幅较长、内容较复杂的一般通识学术文章，并能进行较深入的批判性思考。

二、学术听力能力

在掌握基本听力技巧的基础上，能听懂语速正常、较长篇幅的学术讲座、演讲、专业课程等。能有条理地记录信息，并能根据笔记写比较完整的概要。能就所听材料的内容进行提问和回答等。

三、学术口语能力

在掌握基本英语表达技巧的基础上，能运用各种会话策略有效地参与学术讨论、简单辩论以及提问与回答。能用较为准确恰当的语言表达较复杂和有说服力的观点。熟练掌握陈述技巧，能够在模拟学术会议上宣读小论文、有效参与小组讨论和进行演示报告等。

四、学术写作能力

在掌握基本写作技能的基础上，发展搭建学术论文结构的能力和运用学术论文风格的能力。能就与专业相关的话题撰写一定篇幅的小论文；掌握基本的引用和参考文献格式，掌握基本的学术写作规范等。

五、学术翻译能力

在掌握基本翻译技能的基础上，能够运用正确的语法结构和符合英语习惯的表达将相关专业、学术内容进行口头和书面翻译，译文准确达意、语言通顺。

六、学术词汇能力

熟练掌握词汇学习的各种策略，能利用各类词典和网络资源等拓展词汇知识。

七、学术批判能力

课程训练学生开展项目和分析案例的能力、区分事实和观点的学术批评能力、遵循学术规范的能力等。

本教程的课程设计和教学内容

《新时代大学学术英语综合教程》分上、下两册，每册包含八个单元，主题涵盖了自然科学和人文社科的重要话题，如食品科学、心理、城市规划、人工智能、行为科学等，主题的选取充分考虑学生的专业学习需求、知识结构和认知水平。每单元由四个部分组成，将学术英语的听、说、读、写、译的能力训练有机融合在一起，同时注重培养学生的思辨素养，并结合学术英语中重点词汇的操练，旨在全面发展学生的综合学术英语能力。具体结构如下：

第一部分：阅读（Reading）

该部分包含两篇文章，设计有读前准备（Before Reading）、整体阅读（Global Reading）、细节阅读（Close Reading）和批判性思维训练（Critical Thinking）四项内容。阅读训练包含阅读理解以及相关学术阅读技巧的介绍和操练。批判性思维训练旨在引导学生结合阅读材料，与小组成员进行更深入的思辨和讨论。该部分还包括语言意识培养训练。课文中出现的积极词汇、AWL学术词汇和重点短语都会进行操练。词汇构建（Word building）介绍构词技巧，如前缀、后缀、词性转化、混合、截成、逆生等，并进行各种形式的操练。翻译（Translating）介绍翻译技巧，并运用该技巧翻译和课文有关的单句和篇章。

第二部分：视听（Listening and Viewing）

该部分包含一段听力材料和一段视频材料，设计有视听前准备（Before Listening / Before Viewing）、视听理解（Listening Comprehension / Viewing Comprehension）和批判性思维训练（Critical Thinking）五项内容。听力训练包括听力理解和相关学术听力技巧的介绍和操练。批判性思维训练旨在引导学生结合视听材料与小组成员进行更深入的思辨和讨论。

第三部分：口语（Speaking）

该部分主要介绍学术口语技能（如何参与小组讨论、如何陈述研究成果、如何进行学术研讨等）。结合单元主题设计任务让学生和小组成员开展口语活动，操练所学习的学术口语技能。

第四部分：写作（Writing）

该部分主要介绍学术写作技能（如何撰写论文各部分、如何重述、如何总结、如何正确引用、如何遵循学术写作规范等）。结合单元主题设计任务让学生进行写作练习，操练所学习的学术写作技能。

本教程的特色

《新时代大学学术英语综合教程》包含学生用书、教师用书、电子教案、在线慕课，为教师的教和学生的学提供立体化资源。

本教程的选文皆取自近几年国外权威的期刊及网站，包括自然科学和人文社科不同的主题，选文难度适中、可读性强，具有科学性、研究性、思辨性，同时兼顾文章的人文性和趣味性。

本教程注重操练学生的综合性学术英语能力。每个单元分别介绍针对听、说、读、写、译的学术英语小技能，并通过相应的练习题来巩固强化这些小技能。本教程将对学生批判性思维能力的培养贯穿于每个单元的各个部分，旨在通过多维度、深层次的任务，启发、鼓励、培养学生的批判性思维和创新能力。

在本教程的编写过程中，外籍专家Jemma Leanne Hutchins对全稿进行了认真的审定。在此，我们表示衷心的感谢。

本教程定有不足之处。我们恳切希望各位专家、同仁和学习者多提宝贵意见，以便我们进一步修正，提高教材质量。

编者
2018年7月

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1

Food Science

I Introduction

Unit 1 looks at the topic of food science. This unit comprises four parts:

Part I Reading features two texts on food science, along with an introduction to relevant skills in reading, word-building and translating. Integrated exercises are included to check comprehension, practice the words and expressions in this unit, build vocabulary via prefixes, and practice choosing the right meaning and Chinese equivalent in translation.

Part II Listening and Viewing features an audio clip and a video clip related to the topic of this unit, introduction to relevant listening skills, along with exercises to check comprehension.

Part III Speaking features skills for opening a discussion and agreeing and disagreeing, along with relevant tasks.

Part IV Writing features tips on writing an introduction and a thesis statement, along with relevant tasks.

II Teaching Suggestions

Reading 1

1. Arrange students in pairs or groups and ask them to discuss the questions in Lead-in, Before Reading, Global Reading, then for each section ask two or three students to share their answers and provide feedback.
2. Give students some time to go over the new words and expressions.
3. Explain the text in detail, providing relevant background information and explaining difficult sentences.
4. Go through the skills in Close Reading and ask students to finish the tasks.
5. Arrange students in pairs or groups and ask them to discuss the questions in Critical Thinking, then ask two or three students to share their answers and provide feedback.
6. Ask students to finish Exercises 1, 2 and 3 in Language Enhancement after class on their own.
7. Classroom work is recommended for Exercise 4 as this can be difficult.

Reading 2

1. Arrange students in pairs and ask them to discuss the questions in Before Reading, Global

Reading, then for each section ask two or three students to share their answers and provide feedback.

2. Give students some time to go over the new words and expressions.
3. Explain the text in detail, providing relevant background information and explaining difficult sentences.
4. Go through the skills in Close Reading and ask students to finish the tasks.
5. Arrange students in groups and ask them to discuss the questions in Critical Thinking, then ask two or three students to share their answers and provide feedback.
6. Ask students to finish Exercises 1, 2 and 3 in Language Enhancement after class on their own.
7. Exercise 4 in Language Enhancement can be assigned as written homework.

Listening and Viewing

1. Arrange students in groups and ask them to discuss the questions in Before Listening, then ask two or three students to share their answers and provide feedback.
2. Give students some time to go over the new words and expressions.
3. Go through the listening skill. Play the audio clip and ask students to finish the exercise in Listening Comprehension, then play the clip a second time and ask students to finish the next exercise.
4. Arrange students in groups and ask them to discuss the questions in Before Viewing, then ask two or three students to share their answers and provide feedback.
5. Give students some time to go over the new words and expressions.
6. Go through the listening skill. Play the video clip and ask students to finish the exercise in Viewing Comprehension, then play the clip a second time and ask students to finish the next exercise.
7. Arrange students in groups and ask them to discuss the questions in Critical Thinking, then ask two or three students to share their answers and provide feedback.

Speaking

1. Go through the speaking skills and give necessary explanations.
2. Arrange students in groups and ask them to finish the speaking tasks, then ask two or three students to share their answers and provide feedback.

Writing

1. Go through the writing skills and give necessary explanations.
2. Ask students to finish Exercises 1 and 2 and check answers.
3. If there is enough class time, ask students to finish Exercise 3 in class. If not, assign this writing task as homework. Give peer feedback as well as teacher's feedback on students' writing.

III Teaching Resources

Reading 1

Related information

1. **The UK Food Standards Agency (FSA)** (Para. 1): The Food Standards Agency is a non-ministerial government department (非内阁部门) of the Government of the United Kingdom. It is responsible for food safety and food hygiene across the UK. It works with local authorities to enforce food safety regulations and its staff work in UK meat plants to check the standards are being met.
2. **DNA** (Para. 2): DNA, or **deoxyribonucleic acid** (脱氧核糖核酸), is the hereditary (遗传的) material in humans and almost all other organisms. Human DNA consists of about 3 billion bases, and more than 99 percent of those bases are the same in all people. The order, or sequence, of these bases determines the information available for building and maintaining an organism, similar to the way in which letters of the alphabet appear in a certain order to form words and sentences. Nearly every cell in a person's body has the same DNA. An important property of DNA is that it can replicate, or make copies of itself. This is critical when cells divide because each new cell needs to have an exact copy of the DNA present in the old cell.
3. **Acrylamide** (Para. 2): Acrylamide is a chemical used primarily as a building block in making polyacrylamide (聚丙烯酰胺) and acrylamide copolymers (共聚物). Researchers in Europe and the United States have found acrylamide in certain foods that were heated to a temperature above 120 degrees Celsius (248 degrees Fahrenheit), but not in foods prepared below this temperature. Potato chips and French fries were found to contain higher levels of acrylamide compared with other foods. Acrylamide levels in food vary widely depending on the manufacturer, the cooking time, and the method and temperature of the cooking process.
4. **Maillard reaction** (Para. 3): Browning, or the Maillard reaction, creates flavor and changes the color of food. The Maillard reaction is a chemical reaction between an amino acid and a reducing sugar, usually requiring the addition of heat. This reaction is the basis of the flavoring industry, since the type of amino acid determines the resulting flavor. Each type of food has a very distinctive set of flavor compounds that are formed during the Maillard reaction. It is these same compounds that flavor scientists have used over the years to create artificial flavors.
5. **Amino acid** (Para. 3): Twenty percent of the human body is made up of protein. Protein plays a crucial role in almost all biological processes and amino acids are the building blocks of it. A large proportion of our cells, muscles and tissue is made up of amino acids, meaning they carry out many important bodily functions, such as giving cells their structure. They also play a key role in the transport and the storage of nutrients. They are furthermore essential for healing wounds and repairing tissue, especially in the muscles, bones, skin and hair as well as for the removal of all kinds of waste deposits produced in connection with the metabolism.
6. **Mutation** (Para. 4): A gene mutation is a permanent alteration in the DNA sequence that makes up a gene. Gene mutations can be classified in two major ways: hereditary mutations and acquired (or somatic) mutations. Hereditary mutations are inherited from a parent

and are present throughout a person's life in virtually every cell in the body. Acquired (or somatic) mutations occur at some time during a person's life and are present only in certain cells, not in every cell in the body. These changes can be caused by environmental factors such as ultraviolet radiation from the sun, or can occur if an error is made as DNA copies itself during cell division.

7. **Cancer Research UK** (Para. 5): Cancer Research UK is the world's leading independent charity in the United Kingdom. It carries out scientific research to help prevent, diagnose and treat cancer, ensuring that their findings are used to improve the lives of all cancer patients.
8. **Calorie** (Para. 7): A calorie is a unit of energy. In nutrition and everyday language, calories refer to energy consumption through eating and drinking, and energy usage through physical activity. For example, an apple may have 80 calories, while a 1-mile walk might use up about 100 calories. There are two types of calories: a small calorie and a large calorie. A small calorie (symbol: cal) – 1 cal is the amount of energy required to raise one gram of water by one degree Celsius. A large calorie (symbol: Cal, kcal) – 1 Cal is the amount of energy required to raise one kilogram of water by one degree Celsius. 1 large calorie (1 kcal) = 1,000 small calories.
9. **Enzyme** (Para. 11): Enzymes are proteins that act as catalysts within living cells. Catalysts increase the rate at which chemical reactions occur without being consumed or permanently altered themselves. A chemical reaction is a process that converts one or more substances (known as reagents, reactants, or substrates) to another type of substance (the product). As a catalyst, an enzyme can facilitate the same chemical reaction over and over again.
10. **Sucrose** (Para. 11): Sucrose is a disaccharide (双糖) sugar, meaning it is made up of two monosaccharide (单糖) sugar units. In the case of sucrose, the two units are glucose and fructose. The molecular formula of sucrose is C₁₂H₂₂O₁₁. Sucrose is a natural chemical found in plants, although it can also be synthesized in a lab. It is much easier and cheaper to extract it from plants than to make it from scratch. Sucrose is a nutrient that we consume for energy.
11. **Glucose** (Para. 11): Glucose is a monosaccharide. Glucose is both helpful and harmful to organisms. As mentioned, glucose is used by cells to make ATP (Adenosine Triphosphate 三磷酸腺苷) and power the body. Hyperglycemia (high blood glucose), however, is cytotoxic (cell-killing) and can induce severe inflammation (炎症) throughout the body. Hypoglycemia (low blood glucose) occurs when there is not enough glucose in the blood. This too is harmful and potentially deadly. The body has several ways to detect changing glucose levels and mechanisms to correct harmful situations. When the body cannot regulate glucose levels, diseases such as diabetes occur.
12. **Fructose** (Para. 11): Fructose is a monosaccharide and a natural sugar found in fruits, honey, vegetables and high-fructose corn syrup (HFCS) used in commercial sweeteners for beverages and foods. Dietary fructose malabsorption is a condition which occurs when the small intestine cannot metabolize and absorb all the fructose eaten, causing gastrointestinal (GI) (胃肠的) discomfort.
13. **Asparagine** (Para. 12): Asparagine is α -amino acid that is found in many proteins, particularly in plant proteins, such as in asparagus (芦笋). Asparagine is closely related to the aspartic acid (天冬氨酸), into which it is easily hydrolyzed (水解).

New words and expressions

1. **launch** *v.* put into operation or set in motion (Para. 1)
e.g. The organization has launched a campaign to raise \$150,000.
He launched a fierce attack on his political opponents.
2. **purification*** *n.* the action or process of making pure (Para. 2)
e.g. Medical workers are now trying to spread the message not to use river water without some form of purification.
The goals to be accomplished in the next five years are systems for water purification, waste management, and renewable energy.
3. **reaction**^(A) *n.* a chemical change that occurs when two or more substances combine to form a new substance (Para. 3)
e.g. The reaction of hydrogen with oxygen makes water.
Up to now, there is no fuel or chemical reaction known that could produce the sun's heat and light.
4. **flavor** *n.* how food or drink tastes (Para. 3)
e.g. You can improve the flavor of the sauce by adding a little red wine.
The food we had last night had no flavor at all; perhaps we should go to another restaurant next time.
5. **convert**^(A) *v.* cause to change into another form, substance, or state, or from one purpose, system, etc., to another (Para. 4)
e.g. Knowledge can be converted into wealth.
A good attitude to life helps to turn failure into success and convert misery into happiness.
6. **compound**^(A) *n.* a substance created when the atoms of two or more chemical elements join together (Para. 4)
e.g. The metal reacts with the gas to form a compound.
Carbon dioxide is a common chemical compound of carbon and oxygen.
7. **bind** *v.* combine with (sth.) by chemical forces (Para. 4)
e.g. The hydrogen molecule binds with the oxygen molecule.
The two metals bind to make an alloy.
8. **charity** *n.* an organization for helping people in need (Para. 5)
e.g. The concert will raise money for local charities.
People in the disaster area have to live on rice and noodles donated by charities.
9. **factor**^(A) *n.* any of the forces, conditions, influences, etc., that act with others to bring about a result (Para. 6)
e.g. Studies have established that smoking is a risk factor for cancer.
The island's isolation has been a major factor in preserving its beauty.
10. **defined**^(A) *a.* clearly described or marked (Para. 6)
e.g. When there are no clearly defined boundaries between countries, troubles usually arise.
In determining the employees' contributions, we must have a defined criterion.
11. **obesity*** *n.* the state of being very fat in an unhealthy way (Para. 6)
e.g. Obesity can lead to heart disorders and other health problems.
The program is aimed at reducing obesity among teenagers.
12. **have an impact on** have a strong effect on (Para. 6)
e.g. They expect the meeting to have an impact on the future of the country.

We hope that our research will have an impact on the environment, especially the quality of air in cities.

13. **on the safe side** more careful or cautious than may be necessary (Para. 7)
e.g. To be on the safe side, I checked the figures again.
To be on the safe side, I decided to leave early so that I would be sure to arrive on time.
14. **exposure**^A *n.* (a case of) being left without protection (Para. 7)
e.g. Exposure to the sun can speed up the ageing process.
His lung cancer is tied up with his long exposure to chemical dust in the workshop.
15. **source**^A *n.* a place from which sth. comes; means of supply (Para. 7)
e.g. The sun is perhaps the least expensive energy source we may tap.
Here are some good sources of information to assist you in making the best selection.
16. **go for** try to obtain or win (Para. 8)
e.g. Sometimes we do get less when we go for more.
Are you planning to go for that scholarship to Harvard University?
17. **do well to do sth.** be wise or use good judgment to do what one should do (Para. 10)
e.g. He did well to leave her alone and let her cool off a bit.
He did well to build his hopes on his own efforts instead of relying on others.
18. **occasional** *a.* happening from time to time; not regular (Para. 10)
e.g. Except for her occasional illness, she had had a particularly happy childhood.
Don't get distressed with occasional failures. Even the most talented athletes lose now and then.
19. **overcooked** *a.* being cooked too much or for too long time (Para. 10)
e.g. Overcooked chicken will lose its flavor.
The steak is a little overcooked, and the vegetables are a little undercooked.
20. **break down** become separated or separate (sth.) into simpler substances (Para. 11)
e.g. The foods you eat break down in the body's digestive system.
Digestive enzymes work to break down large pieces of food into smaller, readily absorbable bits that can be properly used by the body.
21. **result in** have as a result; cause (Para. 11)
e.g. This move will eventually result in the loss of a lot of jobs.
Lack of coordination between different departments resulted in the falling of his business.

Difficult sentences

1. *The UK Food Standards Agency (FSA) has launched a campaign warning of the cancer risk associated with cooking potatoes and other starchy foods at high temperatures.* (Para. 1)

Explanation: FSA of the UK has started a movement. The movement warns the public of the cancer risk connected with cooking starchy foods such as potatoes at high temperatures.

Note: The part “*warning of the cancer risk*” modifies the noun phrase “*a campaign*”, and “*associated with cooking potatoes and other starchy foods at high temperatures*” modifies “*the cancer risk*”. Grammatically, the V-ing part and V-ed part here function as what a relative clause does, that is, “a campaign **that** warns of the cancer risk **which is** associated with cooking potatoes and other starchy foods at high temperatures”.

2. *In a word, acrylamide.* (Para. 2)

Explanation: In summary, it is acrylamide that is the problem.

Note: This sentence does not look like a normal sentence that has a subject and a verb. It is the answer to the previous question, “*What’s the problem?*” That is, “Acrylamide is the problem.”

It is also interesting to notice the pun (双关语) here. The author really uses **one word** “*acrylamide*” after the phrase “*in a word*” as the answer to that complicated question. Usually, “*in a word*” doesn’t necessarily mean you just use one word to make a summary.

3. *It’s those kinds of trade-offs we’re encouraging people to just think about ...* (Para. 10)

Explanation: We are encouraging people to weigh up the two choices and act accordingly: to cook potatoes at high temperatures or to have a healthy diet and reduce the risk of cancer.

Note: A **trade-off** is a compromise you need to make between two desirable but incompatible (不可兼容的) features. The following are two other examples: *a trade-off between having chocolate and keeping your figure; a trade-off between economic development and environmental protection.*

4. *Now growers are looking to develop varieties that contain less asparagine, an amino acid that seems to be important for making the chemical.* (Para. 12)

Explanation: Now potato growers hope to develop potato varieties that contain less of the element that may cause the production of acrylamide.

Note: The part “*an amino acid that seems to be important for making the chemical*” is the appositive (同位语) of “*asparagine*”, giving further explanation to what asparagine is.

Translation of the text

土豆现在成了致癌物吗？

萨姆·王

1 英国食品标准局发起宣传活动，提醒人们警惕高温烹饪土豆及其他淀粉类食物时可能产生致癌物。那我们该焦虑吗？是不是需要改变饮食方式呢？

2 问题是什么？

一言以蔽之，丙烯酰胺。这种化学物质在很多工业流程中都有使用，包括水净化过程，在实验中也用于分离DNA分子。某些食物中亦含有丙烯酰胺。

3 哪些食物含有丙烯酰胺？

丙烯酰胺是由米拉德反应产生，这种反应能让被烹饪的食物变成焦黄色，使其香味诱人。糖类和氨基酸发生反应时，会产生数千种不同的化学物质。烹调温度高于120°C时，淀粉类食物如土豆和面包中的丙烯酰胺含量尤其高。这种化学物质也存在于早餐谷物、饼干和咖啡中。

4 丙烯酰胺危险吗？

进入人体后，丙烯酰胺会转化成另一种化合物，这种化合物可与DNA结合导致突变。动物研究清楚地表明丙烯酰胺能导致各种癌症，但跟人类的关系并不太明显。

5 “尽管来自动物研究的证据表明食物中的丙烯酰胺与癌症有关联，但对于人类而言，这种联系并不是很清楚稳定。”英国慈善癌症研究的爱玛·希尔兹说。

6 研究丙烯酰胺对人类的影响要困难得多，但也没有理由相信丙烯酰胺不会破坏人类的DNA。不过跟生活方式有关的其他因素的致癌作用则更确定。“很多已经确定的因素比如吸烟、超重和喝酒，都对英国境内的癌症病例数量有很大的影响，记住这一点很重要。”希尔兹说。

7 我们该怎么办？

“为了保险起见，大家可以通过正常健康平衡的饮食来降低风险，包括少吃高热量食物如薯片、

薯条和饼干等，因为这些都是丙烯酰胺的主要来源。”希尔兹说。

8 煎、烤、炸淀粉类食物时，英国食品标准局的建议是“以金黄为目标”：目标是金黄色或是更淡的颜色。

9 但我喜欢吃又焦又脆的烤土豆呀！

10 那你只要不吃得那么勤就好。“这就是我们鼓励大家考虑的‘权衡利弊’，”英国食品标准局的史蒂夫·沃恩说。“我们并不是说大家偶尔吃一顿烹饪过度的食物就该焦虑不已。这是贯穿一生的风险管理。”

11 我们还能怎样降低风险？

不要把生土豆存放在冰箱里。温度较低时，一种酶会把蔗糖分解为葡萄糖和果糖，这两者会在烹饪过程中组合形成丙烯酰胺。冷冻食品并没有这种风险，因为蔗糖在温度极低时并不会分解。你还可以尝试在煎之前将土豆放入开水中焯一下。这将去掉一半的糖分，丙烯酰胺的含量也将随之降低。

12 将来会出现更安全的土豆。饭店和食品业正被鼓励使用那些天然产生较少丙烯酰胺的土豆品种。目前土豆种植者们也在尝试培育天冬酰胺含量较低的品种，而天冬酰胺似乎也是产生丙烯酰胺的重要氨基酸。

Reading 2

Related information

1. **Processed food** (Para. 1): Processed foods refer to the products which are literally manufactured in industrial conditions. They include almost any food packaged in a box, bag, jar, or can, including foods such as bread, pizza, ice cream, cake, or frozen dinners. Processed foods are manufactured under high temperatures and high pressures that degrade the ingredients. The foods are “products” that need a long shelf life to survive mass production and long-distance shipping. Processed foods often consist primarily of refined grains, sweeteners, refined salt, low-quality artificial fat, and food additives.
2. **Fermented** (Para. 2): Fermented foods are foods that have been through a process of lacto fermentation (乳酸发酵) in which natural bacteria feed on the sugar and starch in the food creating lactic acid (乳酸). This process preserves the food, and creates beneficial enzymes, B vitamins, Omega-3 fatty acids, and various strains of probiotics. Natural fermentation of foods has also been shown to preserve nutrients in food and break the food down to a more digestible form. Cultures around the world have been eating fermented foods for years, from sauerkraut (酸菜) in Germany to kimchi in Korea and everywhere in between. Studies have even shown the link between probiotic rich foods and overall health.
3. **Sprouted** (Para. 2): Sprouting is the practice of germinating (发芽) seeds to be eaten raw or cooked. Sprouts can be germinated at home or produced industrially. They are a prominent ingredient of the raw food diet and common in Eastern Asian cuisine. Sprouting, like cooking, reduces anti-nutritional compounds in raw legumes (豆类). Sprouting is also applied on a large scale to barley as a part of the malting process (麦芽制造过程). A downside to consuming raw sprouts is that the process of germinating seeds can also be conducive to harmful bacterial growth.
4. **Whole food** (Para. 4): Whole foods are unprocessed, unrefined, traditional foods without ingredients. They are superior in nutrition and taste to processed foods, are nonaddictive, and exist in tremendous variety. Typical whole foods are: fresh fruit, fresh vegetables, whole

grain, beans and other legumes, nuts and seeds, seaweed (sea vegetables), unprocessed meat without additives, fish and shellfish without additives, raw milk, eggs, etc. Because no nutrients have been lost to processing, the whole food contains all its original protein, fiber, healthy fat, vitamins, minerals, enzymes, and unique nutrients.

5. **Shelf life** (Para. 4): The shelf life of food is how long it may be stored (exist on a shelf) before the quality deteriorates. Shelf life is used in reference to these common codes: Use by Date, Sell by Date, and Best Before Date. The shelf life depends on which code is used and the type of product in question.
6. **Vacuum-sealing** (Para. 4): Vacuum-sealing or vacuum packing is a method of packaging that removes air from the package prior to sealing. This method involves (manually or automatically) placing items in a plastic film package, removing air from inside, and sealing the package. The intent of vacuum packing is usually to remove oxygen from the container to extend the shelf life of foods and, with flexible package forms, to reduce the volume of the contents and package.
7. **Ultra-processed** (Para. 7): Ultra-processed products refer to processing of substances derived from foods by e.g. baking, frying, extruding (压制), re-shaping, hydrogenation (氢化) and hydrolysis (水解). They generally include a large number of additives such as preservatives, sweeteners, sensory enhancers, colorants, flavors and processing aids, but little or no whole food. They may be fortified with micronutrients. The aim is to create durable, convenient and ready-to-eat or ready-to-heat food products suitable to be consumed as snacks or to replace freshly prepared food-based dishes and meals.
8. **Whole grain** (Para. 9): Any food made from wheat, rice, oats, corn, or another cereal is a grain product. Bread, pasta, oatmeal and grits are all grain products. There are two main types of grain products: whole grains and refined grains. Whole grains contain the entire grain – the bran (糠; 麸), germ (胚芽) and endosperm (胚乳). Examples include whole wheat, oats/oatmeal, rye (黑麦), barley, corn, popcorn, brown rice, wild rice, buckwheat (荞麦), bulgur (cracked wheat), millet, and sorghum (高粱). Refined grains have been milled (ground into flour or meal) which results in the bran and germ being removed. This gives grains a finer texture and improves their shelf life. This process removes some important nutrients, including B vitamins, iron and dietary fiber. Some examples of refined grains are wheat flour, enriched bread and white rice.
9. **Probiotic** (Para. 10): Probiotics are live bacteria and yeasts (酵母) promoted as having various health benefits. They're usually added to yoghurts or taken as food supplements, and are often described as good or friendly bacteria. Probiotics are thought to help restore the natural balance of bacteria in your gut (including your stomach and intestines) when it has been disrupted by an illness or treatment.
10. **Kimchi** (Para. 10): Kimchi is a traditional Korean dish made of seasoned vegetables and salt. Koreans eat it at nearly every meal. It can be fresh, like a salad, or it can be fermented. While the most popular variety is spicy kimchi made of cabbage, there are hundreds of different types of kimchi made of different vegetables, and not all of them are spicy. Kimchi is also a main ingredient in many other Korean dishes.
11. **Pasteurize** (Para. 10): Pasteurization is a heat-treatment process that destroys pathogenic (病原的) microorganisms in certain foods and beverages. It is named for the French scientist

Louis Pasteur, who in the 1860s demonstrated that abnormal fermentation of wine and beer could be prevented by heating the beverages to about 57° C (135° F) for a few minutes. Pasteurization of milk, widely practiced in several countries, notably the United States, requires temperatures of about 63° C (145° F) maintained for 30 minutes or, alternatively, heating to a higher temperature, 72° C (162° F), and holding for 15 seconds (and yet higher temperatures for shorter periods of time). The treatment destroys most of the microorganisms that cause spoilage and so prolongs the storage time of food.

New words and expressions

1. **sweeping** *a.* showing a lack of consideration of facts or details; too general (Para. 1)
*e.g. Mark made a somewhat sweeping statement that investing too early was the same as being wrong.
 For example, we might feel that "people in this nation are most generous". That is a very sweeping generalization.*
2. **generalization** ^{*} *n.* a general statement, principle, or opinion formed from (sometimes incomplete) consideration of particular facts (Para. 1)
*e.g. I realize that I've made some sweeping generalizations in this column, and you may disagree with me.
 Sometimes the phenomena are so complicated or the evidence is so mixed that no generalization is possible.*
3. **ingredient** *n.* any of the things that are formed into a mixture when making sth., esp. in cooking (Para. 2)
*e.g. Spaghetti's basic ingredients are flour and water, sometimes with the addition of eggs or oil.
 The label on the packet indicated all the ingredients in the biscuits.*
4. **undergo** [Ⓐ] *v.* experience (esp. sth. unpleasant, unwelcome, or difficult) (Para. 2)
*e.g. I hope that I shall never again have to undergo such a terrible experience.
 When he spoke of all the miseries he had undergone, he stayed calm as if nothing had happened.*
5. **sprout** [▲] *v.* (cause to) grow new leaves or shoots (Para. 2)
*e.g. Potatoes will sprout in the bag if kept in a warm place.
 Move the pots outside when the seeds begin to sprout.*
6. **nutritious** *a.* valuable to the body as food (Para. 2)
*e.g. The cookbook contains many simple yet highly nutritious meals.
 Milk is a very nutritious food, containing protein, vitamins and minerals.*
7. **detrimental** [▲] *a.* causing harm or damage (Para. 2)
*e.g. Long-acting drugs, like many sleeping pills, are especially detrimental to the elderly.
 She argues that watching too much TV is detrimental to a child's intellectual and social development.*
8. **original** *a.* existing or happening first, before other people or things (Para. 3)
*e.g. The word's original meaning was very different from its current meaning.
 Their original idea was to fix their old car, but they decided to buy a new one instead.*
9. **discern** ^{*} *v.* come to know, recognize, or understand (sth.) (Para. 3)
*e.g. Officials were keen to discern how much public support there was.
 The reasons behind this sudden change are difficult to discern.*

10. **distinct**[Ⓐ] *a.* clearly different or separate (Para. 3)
e.g. The result of the survey fell into two distinct groups.
The two concepts are quite distinct from each other.
11. **take note of** pay careful attention to (Para. 3)
e.g. We hope that manufacturers will take note of the findings and improve their products accordingly.
As I sat in the corner of the meeting room and nobody took note of me, I left before the meeting ended.
12. **make up** form as a whole; constitute (Para. 4)
e.g. We may need to redefine what makes up a family.
A cycle of four seasons makes up a year.
13. **option**[Ⓐ] *n.* one of a number of courses of action that are possible and may be chosen (Para. 4)
e.g. The government has two options: to reduce spending or to increase taxes.
They were discussing all the options, but found none of them was entirely satisfactory.
14. **enhance**[Ⓐ] *v.* increase in strength or amount (Para. 5)
e.g. To enhance the quality of your life, you need both material things and spiritual happiness.
Good secretarial skills should enhance your chances of getting a job.
15. **account for** make up or form (a particular amount or part of sth.) (Para. 5)
e.g. Export sales account for half of the total profits in this company.
According to statistics, overweight or obese people account for over 60 percent of adult Americans now.
16. **fall into** belong in (a particular category or range) (Para. 6)
e.g. What family does that bird fall into?
Whether such processed foods fall into a healthy diet remains to be established.
17. **collectively** *ad.* as a group (Para. 7)
e.g. Individually, people have little power, but collectively they can be more influential.
The team collectively must decide what resources they need and how they are to be used.
18. **fare** *n.* food, esp. food served in a restaurant or eaten on a special occasion (Para. 8)
e.g. Less expensive fare is available at the restaurant across the street.
Goose, duck and turkey are typical holiday fare in the Netherlands.
19. **moisture** *n.* water, or other liquids, in small quantities or in the form of steam or mist (Para. 9)
e.g. Plants use their roots to absorb moisture from the soil.
Your skin's moisture content varies according to weather conditions.
20. **minimal**[Ⓐ] *a.* as little as possible; very little (Para. 9)
e.g. This is a practical course, with only a minimal amount of theory.
Desert plants will stay healthy even with minimal watering.
21. **counterpart**^{*} *n.* a person or thing that has the same purpose or does the same job as another in a different system (Para. 9)
e.g. Bars in Madrid offer more, and better, food than their American counterparts.
Belgian government officials are discussing the matter with their counterparts in France.
22. **immune** *a.* unable to be harmed because of special qualities in oneself (Para. 10)
e.g. Once we've had the disease, we're immune for life.
These cells form part of the immune system and help to prevent the body from getting diseases.

23. **relieve** *v.* lessen (pain, anxiety, or trouble) (Para. 10)
e.g. Regular exercise can relieve depression and anxiety.
The medicine relieved the itching, so the child didn't scratch so much.
24. **disorder** *n.* a failure of part of the body (or mind) to work properly (Para. 10)
e.g. After two years of therapy, he was able to conquer his eating disorder.
The hospital specializes in treating disorders of the brain.
25. **retain**^A *v.* keep possession of; avoid losing (Para. 11)
e.g. He still retains the revolutionary passion of the war years.
Even as an old man he retained his boyish charm.
26. **wither**^A *v.* (of a plant) become dry and weak and start to die (Para. 11)
e.g. The continuous drought withered the plants.
The plants withered and died due to neglect of care.
27. **comparison** *n.* the act of looking at things to see how they are similar or different (Para. 11)
e.g. Make a comparison between these two bags and find out their similarities and differences.
She drew a comparison between life in the city and life in the country.
28. **versus**^{*} *prep.* (abbreviation: vs / vs. / VS) used to indicate two different things, choices, etc., that are being compared or considered (Para. 11)
e.g. She will earn \$2,500 per month under the new plan, versus \$2,400 under the old one.
The finance minister must weigh up the benefits of a tax cut versus those of increased public spending.
29. **compared with** in relation to (sth. else), measured or judged against (sth. else) (Para. 11)
e.g. Statistics show a 20% reduction in burglary compared with last year.
Compared with our small flat, Bill's house seemed like a palace.
30. **stock up on sth.** provide oneself with a full store of sth. (Para. 11)
e.g. Residents are required to stock up on bottled water, canned foods and batteries for emergencies.
Wholesalers had been stocking up on juice before cash prices rose.

Difficult sentences

1. *The term has become a sweeping generalization for anything that comes in a bag or a box.* (Para. 1)
Explanation: The term “*processed foods*” has become a general description for anything that is packaged in a bag or a box. In fact, that generalization may be too simple.
Note: The word “*sweeping*” indicates that the description may be too general, without understanding what processed foods really mean. For example, are all processed foods bad for our health?
2. *... how we process the food matters.* (Para. 2)
Explanation: ... what is important is how we preserve, prepare and cook the food.
3. *Some ingredients can undergo changes – like being frozen, fermented or sprouted – that makes them equally or more nutritious than they once were.* (Para. 2)
Explanation: Ways of processing food may affect the nutrition of the food. For example, when the food is frozen, fermented or sprouted, the ingredients in the food remain equally nutritious or change to be more nutritious.
Note: The part between the two dashes “*like being frozen, fermented or sprouted*” is explanatory,

giving examples of different ways to process food. When reading the sentence, students are advised to first skip this part to catch the main part of the sentence “*Some ingredients can undergo changes ... that makes them equally or more nutritious than they once were.*” Then they may come back to read for more details.

4. *Foods that undergo some processing and contain just two or three ingredients fall into this group.* (Para. 6)

Explanation: Group 3 includes foods that have been processed to some extent. These foods contain just two or three ingredients.

Note: The basic part of the sentence is “*Foods ... fall into this group*”, and the part “*that undergo some processing and contain just two or three ingredients*” is the relative clause modifying “*foods*”.

5. *Yogurt with added sugar or powdered cheese on deep-fried potatoes are examples of processes that turn once-healthy food into less nutritious fare.* (Para. 8)

Explanation: If you combine yogurt with sugar or have powdered cheese on deep-fried potatoes, you have turned those originally healthy food into some less nutritious, though maybe more enjoyable, food.

Note: The subject of the sentence is quite long with two coordinating parts linked by “*or*” — “*Yogurt with added sugar or powdered cheese on deep-fried potatoes*”.

Translation of the text

加工食品并非全都有害健康

卡拉·罗森布鲁姆

1 噢，加工食品。这一名词现在已经成了所有袋装或盒装食品的笼统代名词。甚至我的营养建议通常也会包括“少吃加工食品，选择新鲜食物”之类的含糊句子。但这个句子确实把一个复杂的问题简单化了。

2 当然，我们加工食物的方式很有关系。有些成分经过了如冷冻、发酵、发芽等状态改变后，其营养成分并不会减少，甚至会比以前更有营养。并不是所有的加工都是破坏性的。以下就是区分的方法。

3 苹果比苹果沙司有营养，又都比苹果派更好。食物加工后离原始状态越远，就越不健康。为了更容易判断食物的加工程度，研究者们将食物分成了四大不同组别。你可以基于以下组别留意一下你放进购物车里以及吃进肚子里的东西。

4 第一组——零加工及微加工食品：这个组别包括基本的天然食物，比如蔬菜、水果、坚果、蛋类、肉和奶类。就算是进行加工，也是为了延长保存期限，比如冷冻蔬菜、真空封装肉类。这类食物组成了我们所摄入热量的大约30%——但这些营养食物的比例还应该提高一些。

5 第二组——经加工的调料：这类食物提升饭菜的口味，包括橄榄油、盐、蜂蜜和晒干的药草。橄榄油之类的调料比糖类等更有营养，但这些在日常烹饪中只占我们摄入热量的3%，所以这些并不是主要问题。

6 第三组——加工食品：经过了一些加工且只包括两到三种成分的食物属于这个类别，比如鱼罐头、盐焗坚果、发酵面包。我们从这类食物中得到约10%的热量。这些食物很多都营养丰富，而且使在家烹饪更加方便。

7 第四组——超加工食品。如果将加工食品（第二组和第三组），比如强化面粉、糖、高果糖玉米糖浆，加上食物色素，将它们做成糕点，结果就是超加工食品。这个组别的食品是由五种或五种以上通常比较便宜的食物成分进行工业配制的结果。这些食品提供了我们摄入热量的将近60%，但这个数字应该要大大降低才行。总体而言，超加工食品的糖、脂肪和盐的含量都较高，而缺少纤维质、维生素和矿物质。食用较多超加工食品的人得肥胖症、高血压和高血糖的风险更大，而这三种疾病又会导致心脏病

和糖尿病。其他超加工食品包括糖果、速溶汤粉、冰淇淋、早餐谷物、苏打水和热狗等。

8 往酸奶中加糖或者往油炸土豆上撒奶酪粉就是把原本的健康食品变成营养价值较低的食物例子。但并不是所有的加工都是不好的——有些保存或准备食物的方法是很聪明的。如果一定要买加工（不是超加工）食物的话，请考虑以下因素：

9 **发芽的食物营养丰富：**天然谷物和豆类是活的种子，湿度和温度合适的轻微“加工”会让它们发芽。从健康因素而言，发芽的谷物和豆类比未发芽的品种更容易消化，对血糖水平的影响甚微，而且蛋白质、纤维质和B族维生素含量也更高。因此，要买那些包装上标了“发芽”的天然谷物、豆类和面包。

10 **发酵食物含有益生菌：**最近，发酵食品如酸奶和朝鲜泡菜受到关注是因为其中含有益生菌。益生菌有助于增强免疫系统，减轻便秘，有助于预防某些癌症，人们目前正在研究它们在调节胆固醇、治疗神经紊乱方面的作用。想从饮食中获得更多的益生菌？那就买酸奶或冷藏的朝鲜泡菜——但不要选那种保质期特别长的，因为它们经过高温或消毒处理，益生菌已被杀死。

11 **冷冻食品保留了更多维生素：**要是新鲜蔬菜在冰箱里会发蔫，那就试试冷冻蔬菜。这类食品经过焯水和速冻处理，但这并不会破坏营养成分。事实上，一项针对新鲜蔬果和冷冻蔬果的比较研究表明，冷冻蔬果中的维生素C和维生素E含量跟新鲜蔬果中的含量一样甚至更高。所以，囤点冰冻菠萝、葡萄和草莓吧。放进酸奶里面味道好极了！

Listening and Viewing

Listening Script

Bananas Genetically Modified (GM) Not to Rot

Bananas never last very long – within a few days of buying them, the rot sets in. But now Israeli scientists have found a way to significantly slow down the decomposition by altering their genetic make-up. In fact, researchers say their GM fruit can stay fresh for at least double the time of regular bananas.

“You can see here that these are bananas that we changed the expression of the gene and their ripening is now delayed, while in control fruits the ripening is still developing as fast and normally. You have to understand that these fruits were picked more than a month ago.” The research was initially based on previously-known findings in tomatoes. But it took these findings a step further to isolate the specific gene that drives the ageing process in bananas and interrupt its normal function. Lab tests show that the genetic intervention does not harm the bananas’ quality or taste. The team now hope to find ways to commercialize the findings to benefit farmers and wholesalers.

Viewing Script

Why I’m a Weekday Vegetarian

About a year ago, I asked myself a question: “Knowing what I know, why am I not a vegetarian?” After all, I’m one of the green guys: I grew up with hippie parents in a log cabin. I started a site called *TreeHugger* – I care about this stuff. I knew that eating a mere hamburger a day can increase my risk of dying by a third. Cruelty? I knew that the 10 billion animals we raise

each year for meat are raised in factory farm conditions that we, hypocritically, wouldn't even consider for our own cats, dogs and other pets. Environmentally, meat, amazingly, causes more emissions than all of transportation combined: cars, trains, planes, buses, boats, all of it. And beef production uses 100 times the water that most vegetables do.

I also knew that I'm not alone. We as a society are eating twice as much meat as we did in the 50s. So what was once the special little side treat now is the main, much more regular. So really, any of these angles should have been enough to convince me to go vegetarian. Yet, there I was – chk, chk, chk – tucking into a big old steak.

So why was I stalling? I realized that what I was being pitched was a binary solution. It was either you're a meat eater or you're a vegetarian, and I guess I just wasn't quite ready. Imagine – your last hamburger. (Laughter) So my common sense, my good intentions, were in conflict with my taste buds. And I'd commit to doing it later, and not surprisingly, later never came. Sound familiar?

So I wondered, might there be a third solution? And I thought about it, and I came up with one. I've been doing it for the last year, and it's great. It's called weekday veg. The name says it all: Nothing with a face, Monday to Friday. On the weekend, your choice. Simple. If you want to take it to the next level, remember, the major culprits in terms of environmental damage and health are red and processed meats. So you want to swap those out with some good, sustainably harvested fish. It's structured, so it ends up being simple to remember, and it's okay to break it here and there. After all, cutting five days a week is cutting 70 percent of your meat intake.

The program has been great, weekday veg. My footprint's smaller, I'm lessening pollution, I feel better about the animals, I'm even saving money. Best of all, I'm healthier, I know that I'm going to live longer, and I've even lost a little weight.

So, please ask yourselves, for your health, for your pocketbook, for the environment, for the animals: What's stopping you from giving weekday veg a shot? After all, if all of us ate half as much meat, it would be like half of us were vegetarians.

Thank you.

IV Keys to Exercises

Lead-in

(Answers may vary.)

Part I READING

Reading 1 Are Potatoes Now a Cancer Risk?

Before Reading

(Answers may vary.)

Global Reading

- 1) The text warns us about the cancer risk associated with cooking potatoes and other starchy foods at high temperatures.
- 2) I would possibly find this type of article in a newspaper or magazine.
- 3) The target audience is general readers.

2. A. 1) Yes, there is an introduction. The first paragraph of the article serves as an introduction in which the main idea that cooking potatoes and other starchy foods at high temperatures may be associated with cancer risk is put forward.
- 2) If the introduction is not included, there are 5 parts in the text: “What’s the problem?”, “Which foods contain acrylamide?”, “Is acrylamide dangerous?”, “What should we do?” and “How else can we reduce the risk?”.
- 3) No, there is no conclusion.
- 4) The main idea of this text is that cooking potatoes and other starchy foods at high temperatures may increase the risk of cancer.

B.

Information	Section heading
a) Store the potatoes at room temperature.	1) <u>How else can we reduce the risk?</u>
b) Acrylamide may cause damage to human DNA.	2) <u>Is acrylamide dangerous?</u>
c) When cooking the food, it is advisable not to overcook them.	3) <u>What should we do?</u>
d) Acrylamide has been identified in many foods such as potatoes, bread, biscuits and coffee.	4) <u>Which foods contain acrylamide?</u>

Close Reading

1. 1) increase the risk of cancer
 2) baking, toasting or roasting
 3) “going for gold”
 4) fewer high calorie foods
 5) in the fridge

2. 1) False

Correct statement: *Acrylamide is a dangerous but not a rare chemical.*

Further explanations: Acrylamide may be a dangerous substance, as animal studies clearly show that acrylamide causes all sorts of cancers. But it is not a rare chemical. Acrylamide is used in lots of industrial processes, and it is also found in many common foods such as potatoes, bread, biscuits and coffee.

- 2) False

Correct statement: *There is no evidence that the acrylamide in potatoes will cause cancer in humans.*

Further explanations: According to the text, although animal studies clearly show that acrylamide causes all sorts of cancers, it’s hard to relate this to human beings. So far there are no studies that clearly show the direct relationship between acrylamide and human cancer. We should also be alert that although it’s much harder to study the effects of acrylamide on people, there’s no reason to think that it couldn’t damage human DNA.

- 3) True

- 4) True
- 5) False

Correct statement: *Putting potatoes in the refrigerator is not a good way to store them.*

Further explanations: It is suggested in the text that we should not keep raw potatoes in the fridge, for the reason that at low temperatures, an enzyme breaks down the sugar sucrose into glucose and fructose, which can form acrylamide during cooking.

Critical Thinking

1. In the section of “What should we do?” of the text, the FSA suggests that people should eat less high calorie foods and should not overcook the starchy foods. However, there will always be some people who insist on frying or roasting foods such as potatoes until they are brown and crispy. In this case, Steve states “*We’re not saying to people to worry about the occasional meal that’s a bit overcooked. This is about managing risk across your whole lifetime.*” What he indicates is that it will not do great harm to people’s lives if they overcook the foods occasionally. But if people overcook such starchy foods every time they cook, in the long term, their diet balance may be broken, their DNA may be damaged, and the risk of getting cancer may be increased. Therefore, this is a piece of advice indirectly provided by Steve, calling for people to eat less overcooked foods.
2. The main reason people fail to keep a healthy diet in their lives is that they can hardly resist the temptation of eating high fat or high sugar foods for a long time. Maybe today some of us make the resolution that we won’t eat chocolate or ice cream any more, but several days later we may end up holding our favorite ice cream again. Another reason might be people’s eating habits. Some people, especially men, like eating meat. They seldom eat fruits or they eat only a very small amount of vegetables.

Language Enhancement

1. 1) exposure 2) compound 3) source 4) convert 5) defined
6) factor 7) reaction 8) impact 9) binds 10) launch
2. 1) resulted in 2) break down 3) has had an impact on 4) do well to
5) went for 6) on the safe side
3. 1) concerned 2) convert 3) consistent 4) commercial
5) context 6) concentration
4. 1) 这种化学物质在很多工业流程中都有使用，包括水净化过程，在实验中也用于分离DNA分子。
2) 丙烯酰胺由米拉德反应产生，这种反应能让被烹饪的食物变成焦黄色，使其香味诱人。
3) 这种化学物质也存在于早餐谷物、饼干和咖啡中。
4) 动物研究清楚地表明丙烯酰胺能导致各种癌症，但跟人类的关系并不太明显。
5) 尽管来自动物研究的证据表明食物中的丙烯酰胺与癌症有**关联**，但对于人类而言，这种**联系**并不是很清楚稳定。
6) 温度较低时，一种酶会把蔗糖分解为葡萄糖和果糖，这两者会在烹饪过程中**组合形成**丙烯酰胺。

Reading 2 Not All Processed Foods Are Bad for You

Before Reading

1. In contrast to raw and fresh foods, processed foods have been prepared in some way before

they are sold or eaten. Examples are biscuits, candy, instant soups or noodles, ice cream, soda and hot dogs.

2. Generally speaking, I prefer fresh foods such as fruits and vegetables. But because of the good flavor of many processed foods, I like these processed foods just as much. Besides, processed foods have a longer shelf life, which makes them easy to store. Some processed foods are also convenient to eat on the go.
3. Many processed foods that have been over-processed contain too many ingredients. They are often high in sugar, fat and salt, and lack fiber, vitamins and minerals. These types of processed foods are not good for our health.

Global Reading

1. The text aims at telling people that not all processed foods are detrimental to people. Some processes like freezing, fermenting and sprouting can be beneficial.
2. Four groups of foods are classified according to how processed they are. Group 1 is unprocessed and minimally processed foods; Group 2 is processed cooking ingredients; Group 3 is processed foods and Group 4 is ultra-processed foods.
3. Sprouted, fermented and frozen foods fall into Group 3: processed foods.

Close Reading

1. 1) b 2) c 3) a 4) b
- 2.

Group	Item	Examples of foods in each group
Group 1	Unprocessed and minimally processed foods	1) <u>vegetables, fruits, nuts, eggs, meat and milk, freezing vegetables and vacuum-sealing meat</u>
Group 2	Processed cooking ingredients	2) <u>olive oil, salt, honey and dried herbs</u>
Group 3	Processed foods	3) <u>canned fish, salted nuts, fermented bread and high fructose corn syrup</u>
Group 4	Ultra-processed foods	4) <u>candy, instant soups, ice cream, breakfast cereals, soda and hot dogs</u>

3. 1) Ultra-processed 2) Sprouted 3) an apple pie 4) processed 5) Frozen

Critical Thinking

1. A typical Chinese diet may include: milk, fresh fruit, lightly cooked vegetables, and cooked rice or noodles, cooked egg, fish, meat or poultry. When cooking the dishes, Chinese usually use vegetable oil, salt, soy sauce or a few other low-sodium (低钠的) herbs and spices such as garlic, ginger and leeks. Therefore, Chinese diet mainly contains the foods in Group 1, Group 2 and Group 3. Nowadays, the ultra-processed foods are gaining popularity among young people and children because of their flavor. But they by no means comprise the main part of a normal Chinese diet.
2. We need to resist the temptation of eating ultra-processed foods by bearing in mind that

these foods do great harm to our body if we consume a large portion every day. Think of the diseases like cancer, obesity, heart disease and diabetes. They are not far from us if we fail to keep a healthy diet while eating too many ultra-processed foods. We might make a deal with ourselves that we can eat some candy or ice cream only once or twice a week and keep the portions small. The above-mentioned ideas may be good ways to reduce the consumption of ultra-processed foods.

3. The statement “*eat less processed food and choose fresh food instead*” conveys the generalized concept that processed foods are not as good as fresh foods. But according to the text, not all processed foods are detrimental to people’s health. The processing ways like sprouting, fermenting, and freezing preserve the nutrients quite well in foods. Meanwhile they can prolong the shelf life of foods. Eating fermented foods actually helps prevent some cancers and other diseases. Therefore, we may choose more processed foods from this group. Hence the general statement mentioned in the text simplifies the complex classification of processed foods.
4. A general statement always describes a phenomenon or a concept as a whole rather than considering its details or exceptions. Maybe in most cases the situation or concept being mentioned is correct. However, there could be some exceptions and the crucial details have been left out. For example, there is a Chinese saying that “If kids eat more fish, they will be more intelligent”. This general statement conveys the notion that eating fish may be helpful for the human brain. But it may mislead people into believing that only by feeding their kids with a lot of fish, will the kids become very smart. As a matter of fact, being intelligent requires many prerequisites, such as genes, family and social influence, etc.

Language Enhancement

1. 1) option 2) enhance 3) distinct 4) formulation
 5) minimal 6) undergo 7) retains 8) immune
 9) stock 10) relieve 11) comparison
2. 1) take note of 2) stock up on 3) account for
 4) fall into 5) make up 6) compared with
3. A. 1) c 2) e 3) f 4) b 5) a 6) g 7) d 8) h
 B. 1) entitle 2) discern 3) endangered 4) distract
 5) enrich 6) distinct 7) disorder 8) enforce

4. 加工食品改变了食物的自然状态，原因可能是出于安全考虑或者为了存放或使用更方便。我们一般觉得加工食品不好，事实上，很多加工食品的确不好，但也有一些类型的加工食品是有益的。并非所有的加工过程都有破坏性。有些食物成分经过冷冻、发酵、发芽等状态改变后，营养成分并不会减少，甚至会比以前更有营养。
 如果一定要买加工（不是超加工）食物的话，请考虑以下因素：发芽的食物营养丰富；发酵食物含有益生菌；冷冻食品保留了更多维生素。

Part II LISTENING AND VIEWING

Listening: Bananas Genetically Modified (GM) Not to Rot

Before Listening

1. Genetically modified foods are produced from organisms that have had changes introduced