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英文注释

EVERYDAY SCIENCE

生活中的科学

Science
at the

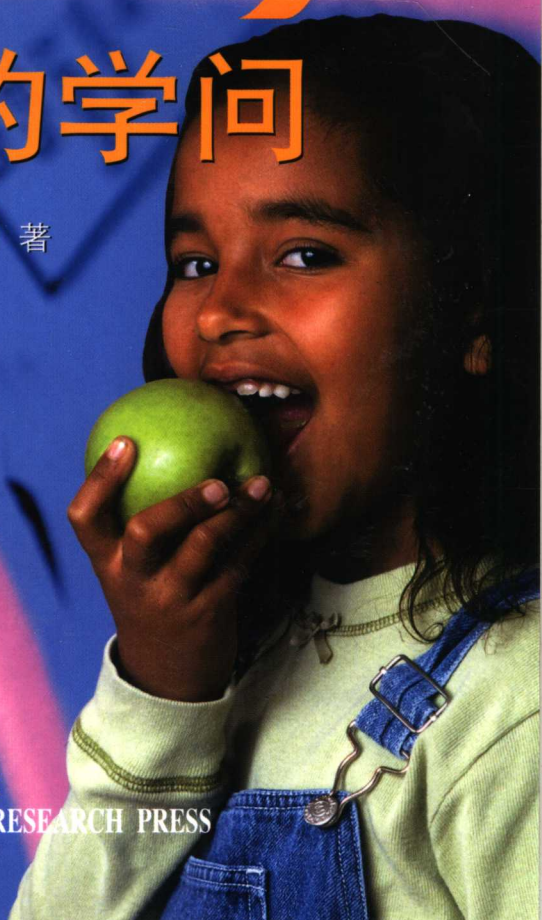
Grocery

食品店里的学问

AMY SARVER (美) 著

外语教学与研究出版社

FOREIGN LANGUAGE TEACHING AND RESEARCH PRESS



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如果你希望在享受英语阅读乐趣的同时又能增长知识、开拓视野，由外语教学与研究出版社与美国国家地理学会合作出版的“国家地理科学探索丛书”（英文注释版）正是你的选择。

“国家地理科学探索丛书”（英文注释版）第二辑分为8个系列，共46本，内容涉及自然科学和社会研究，除对本套丛书第一辑已包含的“生命科学”、“物理科学”、“地球科学”和“文明的进程”4个系列进行了补充外，又推出了4个新的系列——“生活中的科学”、“科学背后的数学”、“专题研究”以及“站在时代前沿的科学家”。

这套丛书秉承《国家地理》杂志图文并茂的特色，在书中配有大量精彩的图片，文字地道易懂、深入浅出，将科学性和趣味性完美结合，称得上是一套精致的小百科全书。特别值得一提的是本套丛书在提高青少年读者英语阅读能力的同时，还注重培养他们的科学探索精神、动手能力、逻辑思维能力和沟通能力。

本套丛书既适合学生自学，又可用于课堂教学。丛书各个系列均配有一本教师用书，内容包括背景知识介绍、技能训练提示、评估测试、多项选择题及答案等详尽的教学指导，是对课堂教学的极好补充。

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Going to the Grocery

去食品店

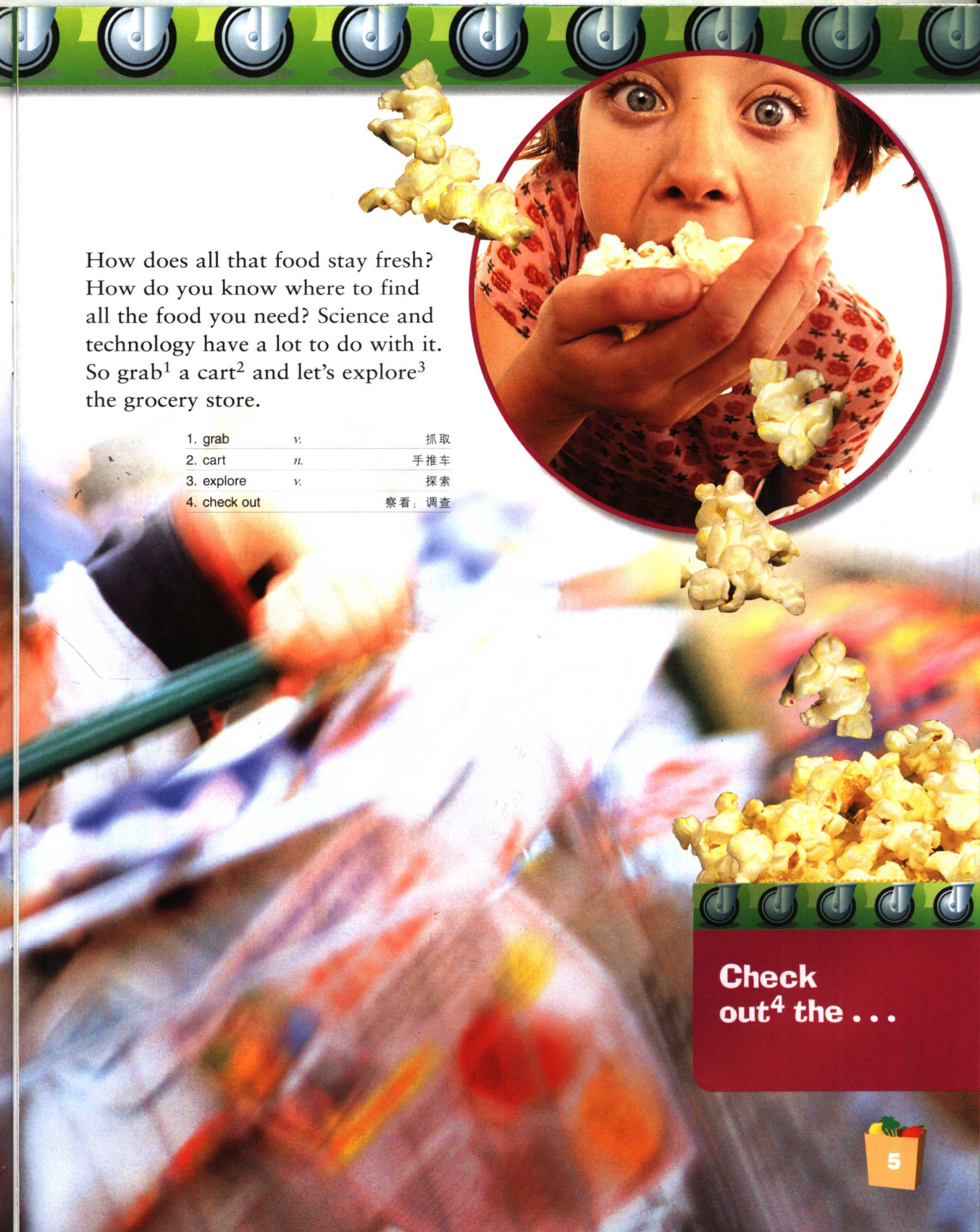


Do you scream¹ for ice cream? Can you eat a bowl of popcorn all by yourself? Whatever your favorite food may be, you can find it at the grocery store.

Thousands of items² line the shelves. Shoppers zip³ through the aisles⁴ night and day. The grocery store hums⁵ with activity.

- | | | |
|-----------|----|--------------|
| 1. scream | v. | 强烈要求 |
| 2. item | n. | 项目 (此处指货物品种) |
| 3. zip | v. | 迅速地移动 |
| 4. aisle | n. | 狭长的通道 |
| 5. hum | v. | 忙碌 |





How does all that food stay fresh?
How do you know where to find
all the food you need? Science and
technology have a lot to do with it.
So grab¹ a cart² and let's explore³
the grocery store.

- | | | |
|--------------|----|--------|
| 1. grab | v. | 抓取 |
| 2. cart | n. | 手推车 |
| 3. explore | v. | 探索 |
| 4. check out | | 察看; 调查 |

**Check
out⁴ the ...**

Doors That Open as You Enter

走过去门就会打开



They pop¹ wide open as you come near. They shut behind you after you walk through. What makes the doors at the grocery store move all by themselves?

Automatic doors may seem simple, but they are not. They are complex² machines. They have many parts that work together to open and close the doors safely. Some use a sensor³ and motor system. The sensor above the door sends out a special light that can tell if something is near the door. When you walk toward the door, that something is you. The sensor sends out a signal⁴ that tells a motor to open the doors. A timer⁵ keeps the doors open long enough for you to walk into the store.

Suppose you stop to tie your shoelaces⁶ in the middle of the doorway. Lucky for you, most doors also have another set of sensors that keep you safe. These sensors are found along the inside edge of the doors. They will “see” you between the doors. Then the timer resets⁷ until you move through the doorway.

But there's even more to explore at the grocery store.

1. pop	v.	发出砰的响声
2. complex	adj.	复杂的
3. sensor	n.	传感器
4. signal	n.	信号
5. timer	n.	定时器
6. shoelace	n.	鞋带
7. reset	v.	重新设置



AUTOMATIC
CAUTION
DOOR

DO NOT
ENTER
AUTOMATIC
DOOR

ATM
PUSH TO OPEN

Check
out the . . .

Food, Food, and More Food

琳琅满目的食品



The shelves are tall. The aisles are long. How do people ever find what they want?

Similar¹ foods are grouped together at the grocery store. That makes it easier to find things. Let's say you want to buy an apple. You know you can find apples with other fruits in the fruit section.

Grouping items is one way that grocery stores and scientists are alike. They both classify things.

When you classify something, you put it in a group with similar things. Just think about what you can find in the breakfast foods aisle. There are shelves full of cereal² boxes. You can also find oatmeal³ and breakfast bars⁴. Grocery stores classify these items so that you can easily find the foods you want.

But there's even more to explore at the grocery store.



- | | | |
|------------------|-------------|-----------|
| 1. similar | <i>adj.</i> | 类似的 |
| 2. cereal | <i>n.</i> | 加工而成的谷类食物 |
| 3. oatmeal | <i>n.</i> | 燕麦片 |
| 4. breakfast bar | | 条形早餐食品 |



**Check
out the . . .**

Vegetable Showers

蔬菜保鲜



You lean¹ over to look at the lettuce². The next thing you know, water is spraying³ on your head. What's happening?

Many grocery stores use misting⁴ to keep vegetables fresh. Misting is a process in which vegetables are sprayed with water. Pipes⁵ carry water to the section where vegetables are stored. Throughout the day, a light mist of water sprays over them. This helps to preserve the vegetables and to keep them firm and fresh.

(注释见第11页)



The vegetables we eat are parts of plants. Plants have roots that take in⁶ water from the soil. When vegetables are taken out of the soil and sent to the grocery store, they no longer get water from the ground. Some vegetables, such as lettuce, can dry out⁷. They need water to keep them crisp⁸. That's why these vegetables get showers during the day.



But there's even more to explore at the grocery store.

1. lean	<i>v.</i>	屈身
2. lettuce	<i>n.</i>	莴苣; 生菜
3. spray	<i>v.</i>	喷溅
4. mist	<i>v.</i>	使(表面)蒙上水汽
5. pipe	<i>n.</i>	管子
6. take in		吸收
7. dry out		干透
8. crisp	<i>adj.</i>	新鲜而脆生的

Check
out the . . .

Milk That Lasts

牛奶的保质期



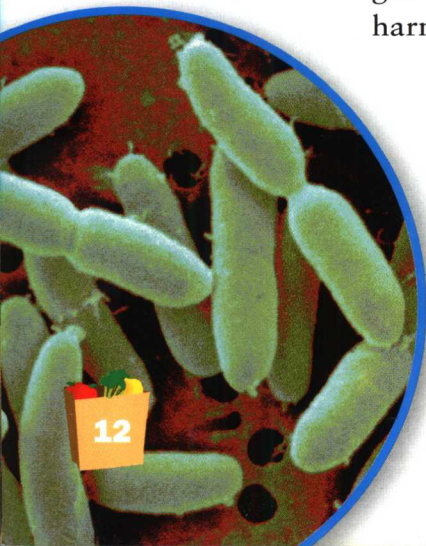
You pour¹ it on your cereal at breakfast. You drink it again for dinner. How does milk stay fresh day after day?

Milk needs to be kept cold or else it will “go bad.” Why does that happen? Milk sours because of a chemical change².

A chemical change happens when one substance³ changes into another substance. Food contains⁴ germs⁵, called bacteria⁶. When milk is left out, the germs in the milk cause the milk to spoil⁷. The fresh milk changes into a new substance—sour milk. And once milk sours, you can’t make it fresh again.

If you keep fresh milk in the refrigerator, though, it might last for a couple of weeks. How? In the 1800s, French scientist Louis Pasteur⁸ found a way to kill germs in food. He developed a process—later named for him—called pasteurization. In this process, food is heated at a high temperature for a period of time. The heat kills many of the germs that cause food to spoil. The milk you buy in the grocery is pasteurized. This means the milk is safe from harmful bacteria.

Bacteria like these turn milk sour.



But there’s even more to explore at the grocery store.

- | | | |
|--------------------|----|--------------------------------|
| 1. pour | v. | 倒 |
| 2. chemical change | | 化学变化 |
| 3. substance | n. | 物质 |
| 4. contain | v. | 含有 |
| 5. germ | n. | 细菌 |
| 6. bacterium | n. | (pl. bacteria) 细菌 |
| 7. spoil | v. | 变质 |
| 8. Louis Pasteur | | 路易斯·巴斯德 (法国化学家、微生物学家, 发明巴氏消毒法) |



**When milk spoils,
it tastes sour.**

**Check
out the . . .**

Foods in the Freezer

冰柜里的食品



You spot¹ your favorite ice cream and open the glass door. A blast² of cold air greets you. Why are some foods kept so cold?

Some food, like ice cream, is made to be eaten as a frozen treat³. Other food, like pizza, is frozen so that it lasts longer without spoiling.

How do foods freeze? Most foods have water in them. Water freezes, or becomes a solid, when its temperature drops to 0°C (32°F). So freezers are set below this point. This keeps the food in a freezer frozen solid.

When water freezes, ice crystals⁴ form.

- | | | |
|----------------|----|---------|
| 1. spot | v. | 发现 |
| 2. blast | n. | 一阵；一股 |
| 3. treat | n. | 使人愉快的食物 |
| 4. ice crystal | | 冰晶（体） |

