



零距离体验美国课堂 感受西方文化教育独特魅力

An [Redacted] Class

美国中学课堂

英语拓展阅读

Timed Readings Plus in Science

Mc
Graw
Hill
Education



吉林出版集团有限责任公司

自然科学
Science



American Class

美国中学课堂

英语拓展阅读

限时阅读 ★ 英汉双语



吉林出版集团有限责任公司

图书在版编目(CIP)数据

美国中学课堂英语拓展阅读. 自然科学: 汉英对照
/ 美国麦格劳·希尔教育出版公司主编; 刘庆双, 刘慧
译. -- 长春: 吉林出版集团有限责任公司, 2013.4
ISBN 978-7-5534-1589-5

I. ①美… II. ①美… ②刘… ③刘… III. ①英语—
阅读教学—中学—课外读物 IV. ①G634.413

中国版本图书馆 CIP 数据核字(2013)第 056642 号

Jamestown

Timed Readings Plus in Science Book 1, Timed Readings Plus in Science Book 3

0-07-827370-6, 0-07-827372-2

Copyright © 2004 by The McGraw-Hill Companies, Inc.

All Rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including without limitation photocopying, recording, taping, or any database, information or retrieval system, without the prior written permission of the publisher.

This authorized Bilingual adaptation is jointly published by McGraw-Hill Education(Asia) and Jilin Publishing Group. This edition is authorized for sale in the People's Republic of China only, excluding Hong Kong, Macao SAR and Taiwan.

Copyright © 2012 by The McGraw-Hill Asia Holdings(Singapore)PTE.LTD and Jilin Publishing Group.

版权所有。未经出版人事先书面许可, 对本出版物的任何部分不得以任何方式或途径复制或传播, 包括但不限于复印、录制、录音, 或通过任何数据库、信息或可检索的系统。

本授权双语改编版由麦格劳-希尔(亚洲)教育出版公司和吉林出版集团有限责任公司合作出版。此版本未经授权仅限在中华人民共和国境内(不包括香港特别行政区、澳门特别行政区和台湾)销售。

版权©2012 由麦格劳-希尔(亚洲)教育出版公司与吉林出版集团有限责任公司所有。

本书封面贴有 McGraw-Hill Education 公司防伪标签, 无标签者不得销售。

吉林省版权局著作权合同登记号: 07-2012-4053, 07-2012-4038

美国中学课堂英语拓展阅读 自然科学

翻 译: 刘庆双 刘 慧

插 画: 齐 航 李延霞

责任编辑: 于 鑫 尹春月

封面设计: 李立嗣

开 本: 720mm×1000mm 1/16

字 数: 323 千字

印 张: 18

版 次: 2013 年 4 月第 1 版

印 次: 2013 年 4 月第 1 次印刷

出 版: 吉林出版集团有限责任公司

发 行: 吉林出版集团外语教育有限公司

地 址: 长春市泰来街 1825 号

邮编: 130011

电 话: 总编办: 0431-86012683

发行部: 0431-86012675 0431-86012826(Fax)

网 址: www.360hours.com

印 刷: 长春市恒源印务有限公司

ISBN 978-7-5534-1589-5 定价: 26.80 元

版权所有 侵权必究 举报电话: 0431-86012683

■ 前言 | Forword

你会常常好奇美国中学课堂究竟是什么样子吗？本套图书就将为你揭开美国中学课堂的神秘面纱，向你展示美国中学教育的真实画面，让你身临其境地领略美国中学课堂的灵动乐章。

这是一套向学生传授科普知识的优秀读本。本套图书共为两本，分为《社会科学》和《自然科学》。每本图书分别精选了美国中学课堂社会科学与自然科学60余篇精品文章。让你在感受美国元素、沉浸于美国丰富的文化同时，不知不觉喜欢上英语，在故事中、在情境中学习和体验英文的魅力。

通过学习，你会了解到山姆大叔、布鲁斯音乐、纽约的手指湖等一系列美国课堂中的经典范文。通过一篇篇短小精悍的文章，让你在欣赏这些优美文字的同时，拓宽视野。仿佛置身于美国课堂，在知识的海洋中自由翱翔。

本套图书适用于学生自学，同时适用于教师课堂使用。详细的使用说明请参见封面、封底勒口处“致学生”“致老师”。另外充分考虑到学生课外阅读的方便，在每篇文章后都备注了中文翻译。超出核心词表的词汇均出现在使其意义明显的语境之中，并标注释义。同时配备了经典习题，加深学生对文章的深入理解，也极大地提高学生的英语阅读水平，对英语学习大有裨益，是一套适合于国内中学生的优秀双语课外读物。

鉴于编者水平有限，凡不周之处，谬误之处，皆欢迎批评教正。我们真心地希望本套图书承载的文化知识和英语阅读的策略对提高学生的英语著作欣赏水平和英语运用能力有所裨益。

本书编委会

■ 目录 | contents

1. Water Is Needed for Life	1
水是生命之源	5
2. Using Energy to Ride a Bike	6
用能量骑自行车	10
3. Fixing a Flat	11
修理瘪胎	14
4. Animals of the Forests	15
森林里的动物	19
5. A Listening Walk in the Forest	20
漫步在森林里聆听自然	23
6. The Constellations	24
星 座	28
7. A Visit to a Planetarium	29
参观天文馆	32
8. Grow Your Own Vegetables	33
种属于自己的蔬菜	36
9. What Is a Veterinarian?	37
什么是兽医?	41
10. Are Dogs Getting Healthier?	42
狗更健康了吗?	45

11. The Features of Earth's Surface	46
地球表面的特征	50
12. Down the Mississippi River	51
沿密西西比顺流而下	54
13. Simple Machines	55
简单机械	59
14. A Simple Solution	60
一个简单的解决方法	63
15. The Scientific Discoveries of Benjamin Franklin	64
本杰明·富兰克林的科学发现	68
16. How Do Kites Fly?	69
风筝是怎样飞行的呢?	72
17. The Truth About Sharks	73
有关鲨鱼的真相	77
18. The Crittercam	78
动物摄影机	81
19. Types of Clouds	82
云的种类	86
20. Meteorologists Predict the Weather	87
气象学家对天气的预测	90
21. Fruits and Vegetables: A Key to Good Health	91
水果和蔬菜: 身体健康的关键	95
22. Exotic Fruits	96

异国小果	99
23. Crossing the Land with Steam Power	100
使用蒸汽的力量横穿陆地	104
24. Robert Fulton and the Steamboat	105
罗伯特·富尔顿和蒸汽船	108
25. Seasons Around the World	109
全球的季节	113
26. Staying Warm in Winter	114
冬季保暖	117
27. What Is a Mammal?	118
哺乳动物	122
28. Mammals with Pouches	123
带有育儿袋的哺乳动物	126
29. How to Organize a Great Science Fair Project	127
怎样安排一次重要的科学展示项目?	131
30. A Tasteful Science Experiment	132
一次美味的科研实验	135
31. Rocks and Minerals	136
岩石和矿物质	140
32. The Hope Diamond	141
希望之星	144
33. How Cacti Survive with Little Water	145
仙人掌怎么能在几乎没有水的条件下生存?	148

34. Flowering and Nonflowering Plants	149
开花植物和不开花植物	153
35. The Honeybee and Pollination	154
蜜蜂和授粉	157
36. Waste and Recycling	158
废物与回收	162
37. Our Class Recycling Project	163
课堂上的有关回收的课题	166
38. Elijah McCoy, Inventor	167
发明家以利亚·麦科伊	171
39. Why Do We Say That?	172
我们为什么那样说?	175
40. The Push and Pull of Magnets	176
磁铁的斥力和引力	180
41. Making Magnets	181
制作磁铁	184
42. The Senses	185
感 觉	189
43. A Fish Out of Water	190
不在水里的鱼	193
44. Telescopes and Microscopes	194
望远镜和显微镜	198
45. An Important Scientist	199

一位重要的科学家	202
46. The Life Cycle of a Tree	203
树的年轮	207
47. Growing Applesauce	208
“长出来”的苹果酱	211
48. How Animals Defend Themselves	212
动物们怎样保护自己	216
49. Animals Keeping Clean	217
动物保持干净	220
50. Is There Life on Mars?	221
火星存在生命吗?	223
51. Our Solar System	224
我们的太阳系	228
52. A Journey Through the Eye	229
眼睛的旅程	233
53. Eye Care Through the Ages	234
爱眼史话	237
54. Spiders That Lasso Their Prey	238
套捕猎物的蜘蛛	241
55. The Art of Herb Gardening	242
草药园艺艺术	245
56. Getting the Salt out of Salt Water	246
去除盐水中的盐	249

57. What Causes Static Electricity?	250
什么引起静电?	253
58. What Makes a Hurricane?	254
飓风怎样形成?	258
59. The Day of the Hurricane	259
飓风日	262
60. Where Have All the the Grasslands Gone?	263
草原去哪里了?	267
61. Hunting Buffalo: A Way of Life	268
捕猎野牛: 一种生活方式	271
62. Arachnids	272
蛛形纲动物	275
ANSWER KEY	276

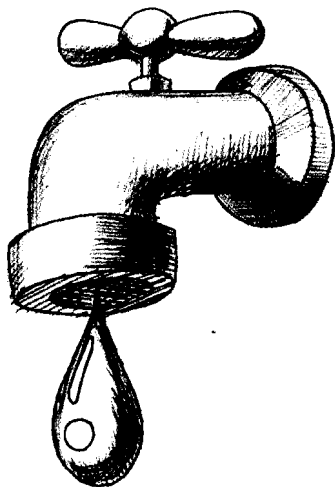
01 Water Is Needed for Life

What would happen to a *houseplant* if nobody ever watered it? It would *wilt* and die. Animals and people need water too. In fact, all living things need water to survive.

Why is water so important? It makes up most of the weight of living things. An animal's blood and the *sap* of plants are mostly water. Blood and sap move food and get rid of waste. In the cells, chemical reactions take place. These are needed for survival, and they can't occur without water.

Our bodies lose water in many ways. We lose it through our skin when we *sweat*. We lose tiny drops of it in the air that we *exhale*. We lose it in the form of *urine*. We lose between 2 and 3 *liters* (2.1 to 3.2 quarts) of water a day. In order to keep enough water in our bodies for our cells to function, we need to take in enough water to make up for what is lost. We get some water from food, but we get most of it by drinking. This is why people need to drink a glass of water several times a day. On hot days, we sweat more, so we need to drink more. When the amount of water in the body falls below a certain level, we feel thirsty. Thirst is the body's way of making sure we drink what we need.

Think about the many other ways we use water each day. We use it to help us brush our teeth. We might use water to make soup for lunch. We add water to cake mixes. We give water to pets. We water the grass and



the flowers in the yard. If there isn't enough rain, farmers may need to water their crops. We take a bath or shower to get clean. We use water to wash our clothes, wash the car, and *mop* the floor. We use water to put out fires.

Pure water does not have any taste or odor. But chemicals, *pesticides*, and wastes from factories have polluted our water. Water pollution can cause health problems in people and can poison *wildlife*. The water that we get from *faucets* and water *fountains* is specially cleaned to make it safe to drink. Laws have been passed to stop pollution. We need to do more to make sure that there will always be clean water for all of Earth's living things.

New Words

houseplant *n.* 室内盆栽植物

sap *n.* (植物体内运送养分的)液; 汁

exhale *v.* 呼出; 呼气

liter *n.* 公升

pesticide *n.* 杀虫剂; 除害药物

faucet *n.* 龙头; 旋塞

wilt *v.* (使)枯萎; 凋谢

sweat *v.* 出汗; 流汗

urine *n.* 尿; 小便

mop *v.* 用拖把擦

wildlife *n.* 野生动物; 野生生物

fountain *n.* 喷泉

Recalling Facts

1. Water makes up of _____ the weight of living things.

☐ a. a small part

☐ b. almost all

☐ c. most

2. We lose between _____ of water a day.

- ☐ a. 2 and 3 pints
- ☐ b. 2 and 3 liters
- ☐ c. 4 and 5 liters

3. When the amount of water in our bodies falls below a certain level, we

- ☐ a. feel thirsty.
- ☐ b. sweat more.
- ☐ c. take a bath or shower.

4. Blood and sap

- ☐ a. move food and get rid of waste.
- ☐ b. make up 90 percent of the weight of living things.
- ☐ c. contain very little water.

5. Water pollution can be caused by

- ☐ a. steam.
- ☐ b. pesticides.
- ☐ c. faucets.

Understanding Ideas

6. If there were no water on Earth, there would be no

- ☐ a. mice.
- ☐ b. rocks.
- ☐ c. deserts.

7. You would probably be thirstiest after

- ☐ a. reading a book at the library.

- ☐ b. watching TV.
- ☐ c. playing basketball outside on a hot day.

8. During dry weather, a farmer would think it is most important to

- ☐ a. water the vegetable crops.
- ☐ b. wash the tractor.
- ☐ c. use a hose to clean the sides of the barn.

9. You might think water is polluted if it

- ☐ a. smells bad.
- ☐ b. has no odor.
- ☐ c. has no taste.

10. Without water,

- ☐ a. most animals could survive.
- ☐ b. most plants could survive.
- ☐ c. no living things could survive.

水是生命之源

一盆室内的植物如果从来没有人浇水会怎么样？它会枯萎然后死掉。动物和人同样也需要水。事实上，所有有生命的东西都需要水来生存。

水为什么这么重要？它组成了生命体的大部分。动物的血液和树的汁液大部分都是水。血液和汁液运送食物并且把废物运送出去。在细胞中会发生化学反应。这些是生存所必需的，没有水，这些都不可能进行。

我们的身体会以很多种方式流失水分。当我们的皮肤出汗时会流失水分。我们呼气时会失去少量的水。水会以尿的形式流失。我们每天会流失2到3升(2.1到3.2夸脱)的水。为了使我们的身体里有足够的水保证细胞的正常工作，我们应该补充足够的水分弥补流失的那些水分。我们可以从食物中获得水，但是大部分是通过喝水获得。这就是为什么人在一天中每隔一段时间就要喝一杯水。在炎热的天气中，我们出的汗多，所以我们就要喝更多的水。当我们身体中的水分含量下降到一定程度时，我们会感觉口渴。口渴是确定我们身体需要水的一种方式。

想想我们每天用水的其他方式。我们用它来刷牙。我们也可以用它做午餐的汤。我们通过加水来调配制作蛋糕。我们给宠物喂水。我们浇园子中的花草。如果没有充足的雨水，农民需要用水来浇灌庄稼。我们用水洗澡来保持干净。我们用水洗衣服、擦车和拖地。我们用水来灭火。

纯净的水没有任何的气味。但是化学药品、杀虫剂、工厂排出的废水污染了水。水污染能引起人的健康问题并且使野生动物中毒。我们从水龙头和喷泉中得到的水是经过特殊净化的，可以安全地饮用。人们已经颁布了法律阻止污染。我们需要做更多事确保我们地球上的生物能一直使用到纯净的水。

02 Using Energy to Ride a Bike

How do the *cereal*, milk, and orange juice you had for breakfast help you ride your bike? The food that you eat is *fuel* for your body. Your body turns this fuel into energy. Your body is always making and using energy.

Just as your body is able to *transfer* energy from your stomach to your muscles, a bike is able to transfer energy from its *pedals* to its wheels. The pedals are attached to a *cogwheel*, which is a wheel with metal teeth. A chain connects this cogwheel with a smaller cogwheel that is attached to the *rear* wheel. As the larger cogwheel turns, the chain makes the rear cogwheel turn the rear wheel. As the rear wheel begins to turn, the front wheel begins to turn too.

Once you get the bike started, the wheels allow it to roll easily. When one surface rolls over another, the movement causes *friction*, or resistance, which slows you down. Bike tires are narrow. There is little friction when the small surface of a bike tire rolls across the ground.



Bicycle wheels are lightweight. This is because it takes less energy to turn a light wheel than it does to turn a heavy one. Lightweight wheels still have to be strong enough to support the weight of the bicycle and the rider. This is the reason wheels have spokes—to add strength.

Why do you have to pedal harder when going up a hill? You need more energy to overcome the force of gravity. The force of gravity increases as you go up a hill.

When you want to stop your bike, you pull the brake *levers*. These levers pull *cables* that move *pads* against the *rim* of the wheel. These pads create friction on the rim and slow the wheel down until the bike stops.

Remember to wear a helmet when you ride your bike. If you fall off your bike, you may hit your head. This can cause serious damage to your brain. Most helmets have a hard shell with a layer of stiff foam. The foam can absorb most of the energy of your head's hitting the pavement. Be sure your helmet has a strong strap that will keep it on your head. When you fall off a bike, you may hit your head more than once.

So eat your breakfast, buckle on your helmet, and have a good ride!

New Words

cereal *n.* 谷类食物

transfer *v.* 转移

cogwheel *n.* 齿轮

friction *n.* 摩擦; 摩擦力

cable *n.* 缆绳; 钢索

rim *n.* 边沿; 轮缘

fuel *n.* 燃料

pedal *n.* 脚踏子; 踏板

rear *adj.* 后面的; 后部的

lever *n.* 操纵杆; 控制杆

pad *n.* 垫状物; 软材料

Recalling Facts

1. Food is fuel that your body turns into

☐ a. muscle.

☐ b. friction.