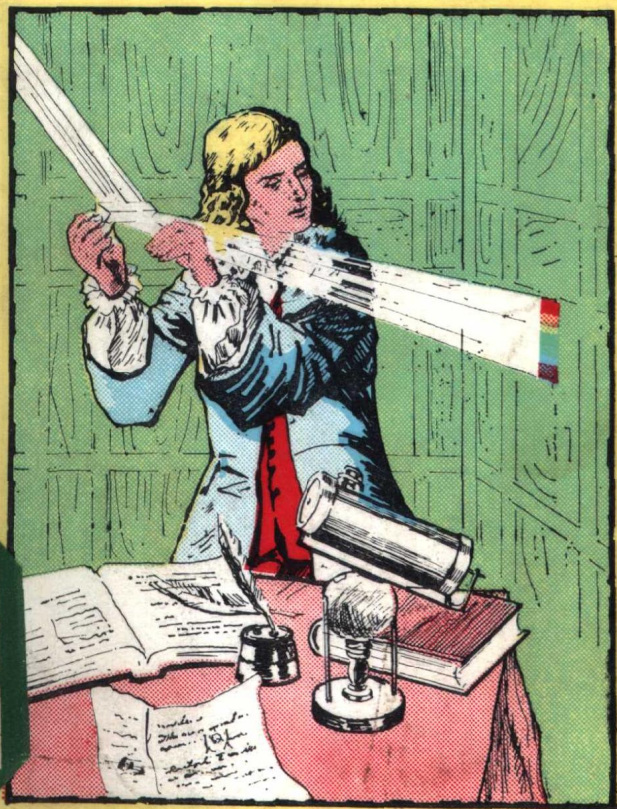


Isaac Newton

艾萨克·牛顿



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中学生英语读物

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艾萨克·牛顿

司延亭 注释

孙式彦 插图

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内 容 简 介

艾萨克·牛顿(Isaac Newton, 1642—1727)是英国伟大的科学家。本书记载了牛顿取得光辉成就的一生,如对反射望远镜的研制、对光色的研究、微积分的发明、万有引力的发现,以及化学方面的研究成果等。

天才在于勤奋,牛顿的成就在于他勤奋学习,善于观察和勇于实践。尽管当时神权统治影响极大,但他敢于排除一切困难和阻力去探索真理,攀登科学的高峰,终于为人类做出了伟大的贡献。

本书选自美国出版的科学家传记,略加删节,对语言难点和生词都加了汉语注释,供高中学生和同等程度的读者阅读。

CONTENTS

1. A Child Born on Christmas Day	1
2. The Lincolnshire Lad	4
3. Meet Miss Storey	12
4. The King's School Scholar	18
5. "He'll Be No Farmer"	23
6. At Cambridge University	33
7. The Black Death	48
8. The Year of Miracles.....	54
9. First Fame	75
10. White Light and New Rivals	87
11. A Petition to the King	96
12. On the Shoulders of Giants.....	103
13. Father of the Space Age	117

1. A Child Born on Christmas Day

The full moon sailed high in the winter sky, lighting the frosty¹ fields and the marshes² along the river. Moonlight brightened the cluster of thatched cottages tucked away in the little valley and the two-story manor house close by.³



Woolsthorpe Manor

1. frosty ['frɒsti] *adj.* 霜冻的; 结霜的。 2. marsh *n.* 沼泽地。 3. Moonlight brightened ... close by. 月亮照亮了隐藏在山谷里的一片茅屋以及茅屋附近的一所两层楼的住宅。 brighten ['braɪtn] *vt.* 使发光, 使发亮。 cluster *n.* (同类事物或人的) 串, 群。 thatch [θætʃ] *vt.* 用茅草等盖(屋顶)。 cottage ['kɒtɪdʒ] *n.* 村舍; 小屋。 tuck *vt.* 使隐藏。 valley ['væli] *n.* 山谷。 manor ['mæno] *n.* 领地, 庄园。 close by 靠近, 附近。

It was Christmas Day 1642, and hours yet before dawn¹. Inside the old stone farmhouse called Woolsthorpe² Manor in Lincolnshire³, England, one room glowed⁴ with candlelight⁵. A newborn baby lay in a hooded cradle pulled up to the warmth of the fire blazing on the open hearth.⁶

England was engaged⁷ in a great Civil War. King Charles⁸' army was fighting an army led by Oliver Cromwell⁹, a member of Parliament¹⁰, to decide who would rule England. Night patrols from both sides ranged the countryside, and once darkness fell, cautious folk seldom left their cottages.¹¹ Two neighbor women, however, had come to help at this baby's birth.

-
1. dawn [dɔ:n] *n.* 黎明, 拂晓。 2. Woolsthorpe ['wulstɔ:p] 乌斯索普(地名)。 3. Lincolnshire ['lɪŋkənʃɪə] 林肯夏(英格兰东海岸一郡)。 4. glow *vi.* (灯)放光。 5. candlelight ['kændllait] *n.* 烛光。 6. A newborn baby lay ... the open hearth. 一个刚生下来的婴儿躺在靠近平炉的带篷摇篮里, 平炉里的炭火正烧得旺旺地。 newborn *adj.* 新生的。 hooded *adj.* 有篷的。 cradle ['kreɪdl] *n.* 摇篮。 blaze *vi.* 燃烧。 the open hearth 平炉。 7. engage [ɪn'geɪdʒ] *vt.* 参加; 使从事于。 8. King Charles 查理王。 9. Oliver Cromwell ['krɒmwəl] 奥利弗·克伦威尔(1599—1658, 英国将军及政治家, 于1653—58年摄政)。 10. parliament ['pɑ:ləmənt] *n.* 议会, 国会。 11. Night patrols from both sides ranged ... their cottages. 乡下到处都是双方的夜巡逻队, 每当黑夜降临时, 小心的乡亲们很少出家门。 patrol [pə'trəʊl] *n.* 巡逻队, 巡逻兵。 range *vt.* 在……走动; 漫游。 cautious ['kɔ:səs] *adj.* 小心的, 谨慎的。 folk *n.* 人们。

They spoke softly to each other.

"'Tis said a baby born on Christmas Day is gifted with rare powers,"¹ one whispered.

"Aye," the older woman agreed. "I've heard that said. But Widow Newton was not expecting this baby for some weeks yet."² He is scarcely strong enough to cry."

Her companion³ nodded. "Still, to be born on Christmas Day is surely a sign⁴ of God's favor," she said. "A son will be such a comfort to Mrs. Newton, with the poor soul's husband dead these past three months."⁵

The woman in the great bed at the far end of the room stirred⁶. The two neighbors hurried to Hannah Newton's⁷ side and placed the baby in her arms.

The new mother looked down at the little bundle⁸.
"Truly, the baby is small enough to fit into a quart

1. 'Tis said a baby born ... with rare powers. 据说在圣诞节出生的婴儿赋有杰出的才能。'tis [tiz] = it is. gift *vt.* 授予(权力、才能等)(宗教用语)。rare *adj.* 罕见的; 杰出的。

2. But Widow Newton was not ... for weeks yet. 然而牛顿家那个寡妇早产了几个星期。widow *n.* 寡妇。Newton ['nju:tn] 牛顿(姓)。

3. companion [kəm'pænjən] *n.* 同伴; 伙伴。

4. sign [sain] *n.* 迹象, 征兆。

5. A son will be ... these past three months. 可怜的牛顿太太自丈夫死后这三个月来, 一个儿子会给她带来多大的安慰啊。

6. stir *vi.* 动, 移动。

7. Hannah Newton 哈娜·牛顿(人名, 牛顿的母亲)。

8. bundle ['bʌndl] *n.* 捆, 包。

pot¹, " Hannah Newton marveled². She would name the child Isaac after his father, she decided.³

2. The Lincolnshire Lad

Hannah Newton was discouraged. The Civil War still raged⁴ throughout Lincolnshire. Bands of soldiers came pounding on her door at all hours, seeking food or horses.⁵

"Managing the manor in times like these is impossible for a woman," Grandmother Ayscough⁶ declared. She and Hannah's brother James⁷ had come for a winter visit.

"You should remarry, Hannah," she announced⁸

-
1. is small enough to fit into a quart pot 小得足够装在一夸脱的罐里。 quart [kwɔ:t] *n.* 夸脱 (英美容量单位, 等于 1.136 升)。 2. marvel ['mɑ:vəl] *vi.* 惊异, 惊奇。
3. She would name the child Isaac after his father. 她要孩子父亲的名字给他取名为艾萨克。 Isaac ['aizək] 艾萨克 (人名)。 4. rage *vi.* 盛行; (战争) 猛烈进行。 5. Bands of soldiers came pounding ... food or horses. 成群结队的士兵不断地来敲她家的门, 抢掠食物和马匹。 band *n.* 队, 组; 乐队。 pound [paund] *vi.* 连续重击, 砰砰地打 (门)。 at all hours 一直不断地。 6. Ayscough ['æskə] 爱斯科 (人名)。 7. James [dʒeɪmz] 詹姆斯 (人名)。 8. announce [ə'naʊns] *vt.* 宣布。

firmly. "Your brother has heard from the Reverend Barnabas Smith¹ of North Witham. He has made you a fine offer of marriage²!"

Hannah listened uneasily³. The clergyman her mother spoke of was a wealthy⁴ sixty-three-year-old bachelor⁵.

"Reverend Smith's offer is generous⁶, Hannah," her brother began. "He will both repair and enlarge Woolsthorpe Manor. Also, some farmland he owns will be deeded⁷ to Isaac. The income from that property, plus the rental⁸ of the Woolsthorpe fields, will support the boy amply⁹."

James avoided¹⁰ his sister's eyes. "However, the clergyman is not accustomed¹¹ to small children. Isaac must remain behind¹² to live at Woolsthorpe."

Hannah Newton gasped¹³.

-
1. the Reverend Barnabas Smith 巴纳巴氏·史密斯教士。(the) Reverend ['revərənd] *adj.* 对牧师的尊称。 2. marriage ['mærɪdʒ] *n.* 结婚; 婚姻。 3. uneasily [ʌn'i:zili] *adv.* 心神不安地, 忧虑地, 担心地。 4. wealthy ['welθi] *adj.* 富的, 富裕的。 5. bachelor ['bætʃələ] *n.* 未婚男子, 单身汉。 6. generous ['dʒenərəs] *adj.* 慷慨的, 大方的。 7. deed *vt.* 立契转让(私人财产)。 8. rental ['rentl] *n.* 租费; 租金收入。 9. amply ['æmpli] *adv.* 足够, 充分。 10. avoid [ə'void] *vt.* 避免; 回避; 躲开。 11. accustom [ə'kʌstəm] *vt.* 使习惯。 be accustomed to ... 惯于 12. remain behind 留在后面; 留下来。 13. gasp [gɑ:sp] *vi.* 热望, 渴望。

James hurried on, "Our mother could live here and look after Isaac for you. North Witham is not so far from here. You'd see your son often."

Hannah was silent. There were so many things to consider. Much as she hated to leave Isaac, it seemed that this new marriage was the best solution to many problems.¹

Details² were soon arranged, and Hannah Newton moved to her new husband's home in the rectory³ at North Witham. Her puzzled three-year-old son⁴ was left behind at Woolsthorpe.

"Your mother will come home to visit soon, Isaac," his grandmother promised. "Why, just a fortnight or two and we'll be seeing her again, lad."⁵

The visits were little comfort. His mother would come home only to disappear again.⁶

By the time Isaac was nine, his mother had two

1. Much as she ... to many problems. 虽然她很不愿意离开艾萨克, 但看来这次再结婚是解决许多问题的最好办法。 hate *vt.* 恨, 憎恶。 solution[sə'lju:ʃən] *n.* 解决; 解答。

2. detail ['di:teɪl] *n.* 细节; 详情。 3. rectory ['rektəri] *n.* 教区长的管辖区; 教区长的住宅。

4. Her puzzled three-year-old son...她的那个不好办的三岁的儿子..... puzzle ['pazl] *vt.* 使迷惑; 使为难, 使窘困。 5. Why, just a fortnight ... lad. 是呀, 再过个把月我们又可以看到她啦, 孩子。

fortnight *n.* 两个星期。 6. His mother would come home only to disappear again. 他母亲回来了, 可是又走了。

more children. But what good was there, Isaac wondered, in having a half-sister and a half-brother?¹ Little Mary was much too timid² to play with him. And as for Benjamin!³ Isaac scowled⁴. Benjamin was a mere baby!

Besides, he and the other children lived in different houses. They were not at all like ordinary brothers and sisters. Isaac stared out the manor house window and sighed. If only he had a real friend to play with.⁵

His sigh reached Grandmother Ayscough's ears. She went to the window to see what Isaac was watching. In a nearby field the sons of the tenant cottagers⁶ were playing a wild game of soldiers. Each boy flourished⁷ a wooden stick for a sword.

After years of Civil War, King Charles' Royal Army⁸ had been defeated in 1645. The king himself

1. But what good ... a half-brother? 可是艾萨克不知道再有一个异父弟弟和一个异父妹妹又有什么好处? 2. timid *adj.* 胆怯的。 3. And as for Benjamin! 至于本杰明么! Benjamin ['bendʒəmin] 本杰明(人名)。 4. scowl [skaul] *vi.* 皱眉头, 沉着脸。 5. If only he had a real friend to play with. 若是他有一个真正的好朋友一块玩玩就好了。 if only 只要; 要是……就好。 6. cottager *n.* (英)村民。 7. flourish ['flaɪrɪʃ] *vi.* 挥舞。 8. King Charles' Royal Army 查理国王指挥的皇家军队。 royal ['rɔɪəl] *adj.* 王室的; (英国)皇家的。

had been removed from the throne and beheaded.¹ His place as ruler was taken by Cromwell, who was given the title of lord protector². Although the Civil War was over, country lads still played soldiers.

Isaac read her thoughts.³ "They asked me to join them, grandmother, but I don't like mock⁴ battles. Besides, I'm too small for their rough games," he added truthfully.

Left to himself, young Isaac Newton found his own pleasures. Nearby were fields to roam⁵ and marshes to explore⁶. His natural curiosity took him in all directions.⁷ He gathered herbs⁸ for his grandmother, picked wild flowers to dry for his own collection, and selected shiny pebbles⁹ to arrange on his bedroom shelf. On Sunday mornings he walked with grandmother to church.

Summer days were best of all. There was so much to see and think about.

-
1. The king himself had been ... beheaded. 国王本人被推翻并被送上了断头台. throne [θrəʊn] *n.* 宝座; 王位. behead [bi'hed] *vt.* 砍……的头. 2. the title of lord protector 护国公的头衔. title ['taɪtl] *n.* 称号; 头衔. lord *n.* 封建领主; 老爷. 3. Isaac read her thoughts. 艾萨克了解她的想法. 4. mock *adj.* 假的; 模拟的. 5. roam *vt.* 在……漫步; 漫游. 6. explore [iks'plɔ:] *vt.* 探索. 7. His natural ... in all directions. 他天生的好奇心从各个方面都吸引着他. curiosity [,kjʊəri'ɒsɪti] *n.* 好奇心. in all directions 四面八方, 各方面. 8. herb *n.* 香草, 药草. 9. pebble *n.* 卵石.

Lying quietly at the edge of a pond, Isaac observed water spiders skating on the surface of the little stream behind the manor house.¹ How strange that they did not sink² nor seem to wet³ their feet!

Sometimes flocks of waterfowl dotted the sky above the Colsterworth marshes.⁴ Isaac marveled at the sight. He sketched the birds, using charcoal and scraps of paper for his pictures.⁵

When winter came, Isaac walked alone across the fields every morning to the village school. If his work interested him, Isaac was a good student. When he found the lessons dull⁶, he escaped into the world of his imagination⁷.

Although he could do arithmetic problems in his

1. Lying quietly ... the manor house. 艾萨克静静地躺在池塘边, 观察水蛛在庄宅后面小溪的水面上滑水玩。edge *n.* 边, 边沿。spider ['spaidə] *n.* 蜘蛛。skate *vi.* 滑过; 滑冰。stream *n.* 小河, 溪流。

2. sink [sɪŋk] (过去式 sank 或 sunk, 过去分词 sunk 或 sunken ['sʌŋkən]) *vt. & vi.* (使)下沉; (使)沉没。

3. wet *vt.* 弄湿。

4. Sometimes flocks of waterfowl ... the Colsterworth marshes. 有时一群群的水鸟布满了科斯特厄斯沼泽地的上空。flock *n.* 鸟群; 兽群。waterfowl ['wɔ:təfaʊl] *n.* 水鸟。dot *vt.* 星罗棋布。

5. Isaac sketched the birds, using ... for his pictures. 他用木炭和碎纸片素描出各种各样的鸟。sketch *vt.* 写生, 速写。charcoal ['tʃɑ:kəʊl] *n.* 炭, 木炭。a scrap of paper 碎纸片。

6. dull [dʌl] *adj.* 单调的。7. imagination [i,mædʒi'neɪʃən] *n.* 想像力; 空想。

head, Isaac was not the schoolmaster's favorite pupil.¹ "Always asking questions, that one is," the teacher complained.²

On winter evenings, seated by the kitchen fire, grandmother told stories. Isaac whittled³ little models while his grandmother talked. He handled⁴ tools well, and he liked the feel of the wood.

Isaac's model toys were always constructed with working parts: wheels turned, windmill sails moved, and tiny gears meshed together.⁵

One night Grandmother Ayscough watched the pocketknife⁶ flash⁷ up and down. "What are you making, Isaac?" she asked.

"A new toy waterwheel⁸," he answered. "My last

-
1. Although he could do...favorite pupil. 尽管艾萨克数学心算很好,他却不是校长最喜爱的学生。arithmetic [ˌæriθ'metik] *adj.* 算术的。favorite ['feivərɪt] *adj.* 特别喜爱的。*n.* 特别喜爱的人(或物)。 2. "Always asking questions, that one is," the teacher complained. "这个人老是提问题,"老师抱怨道。complain [kəm'pleɪn] *vt.* 抱怨,叫屈;诉苦。 3. whittle [h'wɪtl] *vt.* 切,削。 4. handle ['hændl] *vt.* 用手触摸;摆弄。 5. Isaac's model toys were ... together. 艾萨克制作的模型玩具,总有那么一些工作部件组成:转动轮,旋转的风车和和一些咬合在一起的小齿轮。construct [kən'strʌkt] *vt.* 建造;构筑。windmill *n.* 风车。gear [giə] *n.* 齿轮。mesh *vt.* (齿轮的)相啮合,相互咬合。 6. pocketknife *n.* 随身携带的小折刀。 7. flash *vi.* 闪亮,闪光。 8. waterwheel ['wɔ:təhwi:l] *n.* (水力推动的)水轮,水车。

one did not work. The wheel moved sluggishly¹. I won't make that mistake again, grandmother. These parts are smaller and will allow space for the wood to swell when it gets water-soaked.²"

In the year 1653, Isaac Newton's world turned upside down again.³ He was eleven now and almost through school. Grandmother told him the startling⁴ news. "Barnabas Smith is dead. Your mother is coming home again," she said.

Isaac's heart thumped⁵. How many times had he wished that his stepfather⁶ would die? Again and again during the lonely years he had said the words to himself. But he had not really meant it.

"Your mother is coming home to Woolsthorpe!" Grandmother Ayscough repeated.

Isaac nodded. Mother was coming home. With her, no doubt, would come six-year-old Mary, two-

-
1. sluggishly ['slʌɡɪfli] *adv.* 缓慢地; 迟钝地。 2. These parts are smaller ... water-soaked. 这些零件都比较小, 这样一旦木头浸湿时就可以留出木头因膨胀所需的空間。 swell (swelled, swollen ['swəʊlən] 或 swelled) *vi.* 膨胀。 water-soak ['wɔ:təsəuk] *vt.* 用水浸湿。 3. In the year 1653, Isaac Newton's world turned upside down again. 在1653年, 艾萨克·牛顿又遇到了挫折。 turn upside down 把……完全颠倒。 4. startling ['stɑ:tlin] *adj.* 令人吃惊的; 惊愕的。 5. thump *vi.* (心脏等) 卜卜地跳, 悸动。 6. stepfather ['step,fɑ:ðə] *n.* 继父。

year-old Benjamin, and baby Hannah.¹

Grandmother Ayscough guessed at his thoughts.² Well-a-day!³ So the boy was jealous⁴ of the small children. "Your mother could scarcely leave them behind in North Witham. Now could she?"

Isaac stared gloomily⁵ at her.

3. Meet Miss Storey⁶

One day not long after Mrs. Smith's return, Isaac's Uncle William came to call. The Reverend William Ayscough had been educated at Cambridge University⁷. Now he thought Isaac should be sent away to a good school.

"Isaac has almost finished school," Hannah Smith objected⁸.

"Bah!⁹ Those little village schools teach farm boys

1. With her, ... and baby Hannah. = There was no doubt that six-year-old ... would come with her.

2. Grandmother Ayscough guessed at his thoughts. 祖母艾斯科猜透了他的心思。 3. well-a-day ['wele'dei] *interj.* 哎唷!

4. jealous ['dʒeləs] *adj.* 妒忌的。

5. gloomily ['glu:mili] *adv.* 阴郁地。 6. Miss Storey

['sto:ri] 斯托里小姐。 7. Cambridge University 剑桥大学。

8. object [əb'dʒekt] *vi.* 反对; 抗议。 9. bah

[ba:] *interj.* 呸! (表示轻蔑、厌恶等)。