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# Morning Reading 晨读

Grade 10 · Week 15

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*Read each word aloud, then copy the English word three times.* 朗读每个单词，然后把英语单词抄写三遍。

## Reading 阅读

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*Read the passage aloud twice.* 把短文朗读两遍。

Is a country rich if it has money? Not only that. The **Human Development Index** measures three things together: income per person, education, and **life expectancy**, how long people live. A country can grow richer while some people stay poor. **Absolute poverty** means a family cannot afford basic food and shelter. **Relative poverty** means they have far less than others around them. One tool against low pay is a **minimum wage**.

In physics, you learned that some rocks and even the air are slightly **radioactive**. A detector clicks even with no sample nearby; this is **background radiation**, coming from space and from the ground. Radioactive **decay** is **random**: no one can say which atom will break next, only how many will decay on average.

How does a computer find one name in a list of millions? A **linear search** checks each item, one by one. To put a list in order, a **bubble sort** swaps neighbours again and again until the list is sorted.

*Talk about it* 说一说:

1. Which matters more for a good life: income, education, or health? Discuss.
2. How would you find one card in a shuffled deck? Compare your method with a linear search.

## Physics

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*Topics 1–5 · Motion, forces and energy, Nuclear physics*

☒ **nuclide** 核素

☞ **isotope** 同位素

☛ **nuclear fission** 核裂变

|                               |  |  |  |
|-------------------------------|--|--|--|
| ⬆ nuclear fusion 核聚变          |  |  |  |
| ☒ hydrogen 氢                  |  |  |  |
| ☒ helium 氦                    |  |  |  |
| ⚠ unstable 不稳定                |  |  |  |
| ☼ radiation 辐射                |  |  |  |
| ☼ background radiation 背景辐射   |  |  |  |
| ☼ gamma radiation $\gamma$ 射线 |  |  |  |
| ☼ radioactive 放射性             |  |  |  |
| ↘ decay 衰变                    |  |  |  |
| ☼ spontaneous 自发              |  |  |  |
| ↻ random 随机                   |  |  |  |
| ☒ radon 氡                     |  |  |  |
| ☼ cosmic rays 宇宙射线            |  |  |  |
| [ ] detector 探测器              |  |  |  |
| ⏸ counter 计数器                 |  |  |  |
| ⌋ count rate 计数率              |  |  |  |
| ✓ corrected 修正                |  |  |  |
| ⚡ ionising 电离                 |  |  |  |
| 💎 aluminium 铝                 |  |  |  |

## Chemistry

*Topics 10–11 · Chemistry of the environment, Organic chemistry*

|                       |  |  |  |
|-----------------------|--|--|--|
| ☀ photosynthesis 光合作用 |  |  |  |
| ⊙ yeast 酵母            |  |  |  |

|                                                                                                                |  |  |  |
|----------------------------------------------------------------------------------------------------------------|--|--|--|
|  glucose 葡萄糖                  |  |  |  |
|  displayed formula 结构式        |  |  |  |
|  structural formula 结构简式      |  |  |  |
|  general formula 通式           |  |  |  |
|  Structural isomers 同分异构体     |  |  |  |
|  homologous series 同系物        |  |  |  |
|  functional group 官能团         |  |  |  |
|  saturated 饱和                 |  |  |  |
|  unsaturated 不饱和              |  |  |  |
|  coal 煤                       |  |  |  |
|  natural gas 天然气             |  |  |  |
|  petroleum 石油               |  |  |  |
|  hydrocarbon 碳氢化合物          |  |  |  |
|  fractions 馏分               |  |  |  |
|  fractional distillation 分馏 |  |  |  |
|  fractionating column 分馏塔   |  |  |  |
|  chain length 链长            |  |  |  |
|  volatility 挥发性             |  |  |  |
|  viscosity 黏度               |  |  |  |

# Biology

Topics 16–17 · Reproduction, Inheritance

♀ secondary sexual  
characteristics 第二性征

↺ menstrual cycle 月经周期

○ ovulation 排卵

🍷 progesterone 孕酮

🤰 pregnancy 怀孕

🦠 sexually transmitted  
infection 性传播感染

🦠 infection 感染

🦠 virus 病毒

📊 codes 编码

🔑 allele 等位基因

♀ sex chromosomes 性染色  
体

÷ ratio 比例

🧠 neurotransmitters 神经  
递质

🗣️ expresses 表达

✉️ messenger 信使

⊙ ribosome 核糖体

📄 mitosis 有丝分裂

📄 replication 复制

⊙ daughter cell 子细胞

🌱 stem cells 干细胞

|                                                                                                               |  |  |  |
|---------------------------------------------------------------------------------------------------------------|--|--|--|
|  <b>meiosis</b> 减数分裂         |  |  |  |
|  <b>inheritance</b> 遗传       |  |  |  |
|  <b>genotype</b> 基因型         |  |  |  |
|  <b>phenotype</b> 表现型        |  |  |  |
|  <b>dominant</b> 显性          |  |  |  |
|  <b>recessive</b> 隐性         |  |  |  |
| <b>=</b> <b>homozygous</b> 纯合子                                                                                |  |  |  |
|  <b>pure-breeding</b> 纯种     |  |  |  |
| <b>±</b> <b>heterozygous</b> 杂合子                                                                              |  |  |  |
| <b>×</b> <b>cross</b> 杂交                                                                                      |  |  |  |
|  <b>Punnett square</b> 庞纳特方格 |  |  |  |
|  <b>pedigree diagram</b> 系谱图 |  |  |  |
| <b>×</b> <b>test cross</b> 测交                                                                                 |  |  |  |
|  <b>codominance</b> 共显性      |  |  |  |
|  <b>blood groups</b> 血型      |  |  |  |
|  <b>sex-linked</b> 伴性遗传     |  |  |  |

## Mathematics

*Topics 6–7 · Trigonometry, Transformations and vectors*

|                                                                                                                           |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------|--|--|--|
|  <b>angle of depression</b> 俯角         |  |  |  |
|  <b>trigonometric equation</b><br>三角方程 |  |  |  |
|  <b>sine rule</b> 正弦定理                 |  |  |  |
|  <b>cosine rule</b> 余弦定理               |  |  |  |

② ambiguous case 两解情况

□ plane 平面

△ transformation 变换

[:] reflection 反射

— mirror line 对称轴

↻ rotation 旋转

[ ] enlargement 放大

↔ translation 平移

↗ vector 向量

↕ column vector 列向量

# scalar 标量

→ directed line segment 有向线段

## Computer Science

### Topic 8 · Programming

± integer 整数

⊙ real 实数

T char 字符

☞ string 字符串

⊙ Boolean 布尔值

≡ sequence 顺序

☞ selection 选择

↺ iteration 迭代

↻ loop 循环

↺ count-controlled loop 计数循环

↑ pre-condition loop 前测循环

↓ post-condition loop 后测循环

% remainder 余数

>≡ nested statement 嵌套语句

✂ substring 子串

↑ upper case 大写

↓ lower case 小写

↔ length 长度

ƒ procedure 过程

ƒ function 函数

## Economics

*Topic 5 · Economic development*

♥ life expectancy 预期寿命

↗ income distribution 收入分配

☹ poverty 贫困

☹ absolute poverty 绝对贫困

⚖ relative poverty 相对贫困

↗ redistribute 再分配

⤴ minimum wage 最低工资

|                                                                                                            |       |       |       |
|------------------------------------------------------------------------------------------------------------|-------|-------|-------|
|  <b>benefits</b> 福利       | _____ | _____ | _____ |
|  <b>birth rate</b> 出生率    | _____ | _____ | _____ |
|  <b>death rate</b> 死亡率    | _____ | _____ | _____ |
|  <b>migration</b> 移民      | _____ | _____ | _____ |
|  <b>immigration</b> 迁入    | _____ | _____ | _____ |
|  <b>emigration</b> 迁出     | _____ | _____ | _____ |
|  <b>net migration</b> 净移民 | _____ | _____ | _____ |

## English

*Topics 10–11 · Speaking skills, Vocabulary and text types*

|                                                                                                               |       |       |       |
|---------------------------------------------------------------------------------------------------------------|-------|-------|-------|
|  <b>intonation</b> 语调        | _____ | _____ | _____ |
|  <b>paraphrasing</b> 释义    | _____ | _____ | _____ |
|  <b>collocations</b> 词语搭配  | _____ | _____ | _____ |
|  <b>set phrases</b> 固定短语   | _____ | _____ | _____ |
|  <b>phrasal verbs</b> 短语动词 | _____ | _____ | _____ |
|  <b>fluent</b> 流利          | _____ | _____ | _____ |