
Morning Reading 晨读

Grade 11 · AS · Week 14

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

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

What actually flows in a wire? Electrons, each carrying a tiny negative charge. Charge is measured in **coulombs**, and one ampere of current means one coulomb passing every second. Surprisingly, the electrons themselves creep along at a **drift velocity** of less than a millimetre per second; the electric field that pushes them, however, spreads at nearly the speed of light, which is why the lamp lights instantly. A battery provides the push: its **electromotive force** drives charge around the circuit, and the **potential difference** across a component, in **volts**, tells you the energy transferred per coulomb. A **semiconductor** sits between conductor and insulator, and its special behaviour built the modern world.

The labour market has its own flow. **Frictional unemployment** is people between jobs; **structural unemployment** follows when whole industries change and skills no longer match; **seasonal unemployment** comes and goes with harvests and holidays. Meanwhile **inflation** eats quietly at the **purchasing power** of every yuan saved.

Talk about it 说一说:

1. The light comes on instantly, yet electrons crawl. Explain the difference.
2. Which type of unemployment worries you most for your own future? Why?

Physics

Topic 10 · D.C. circuits

⌚ ammeter 电流表

⌚ voltmeter 电压表

💡 LED 发光二极管

⌚ capacitor 电容器

 fuse 保险丝			
 junction 节点			
 conservation of charge 电荷守恒			
 loop 回路			
 Kirchhoff's first law 基尔 霍夫第一定律			
 Kirchhoff's second law 基尔霍夫第二定律			
 rheostat 变阻器			
 sensor 传感器			
 transistor 晶体管			
 comparator 比较器			
 threshold 阈值			
 potentiometer 电位差计			
 jockey 滑动触头			
 galvanometer 检流计			
 null method 零点法			

Chemistry

Topic 13 · An introduction to AS Level organic chemistry

 electrophile 亲电试剂			
 addition 加成			
 substitution 取代			
 elimination 消去			
 condensation 缩合			

▷ initiation 引发			
∞ propagation 增长			
□ termination 终止			
✱ free-radical substitution 自由基取代			
+ electrophilic addition 亲 电加成			
☞ nucleophilic substitution 亲核取代			
+ nucleophilic addition 亲 核加成			
↪ curly arrow 弯箭头			
⦿ cyclic 环状			
□ planar 平面			
🔄 isomerism 异构			
🔗 structural isomerism 结 构异构			
🔗 chain isomerism 链异构			

Biology

Topics 7–8 · Transport in plants, Transport in mammals

🔗 cohesion 内聚力			
↕ tension 张力			
🔗 adhesion 附着力			
☀ xerophyte 旱生植物			
🔄 adapted 适应			
🛡 cuticle 角质层			

 source 源			
 sink 库			
 proton pump 质子泵			
 cotransporter protein 协同运输蛋白			
 hydrostatic pressure 静水压			
 mass flow 集流			
 blood vessel 血管			
 heart 心脏			
 double circulation 双循环			
 circulatory system 循环系统			
 pulmonary circulation 肺循环			
 systemic circulation 体循环			
 artery 动脉			
 arteriole 小动脉			
 capillary 毛细血管			
 venule 小静脉			

Mathematics

Topic 4 · Mechanics

 tension 张力			
 inclined plane 斜面			

 **connected particles** 连接
质点

 **work done** 功

 **kinetic energy** 动能

 **gravitational potential
energy** 重力势能

 **conservation of energy**
能量守恒

 **power** 功率

 **limiting equilibrium** 极
限平衡

 **deceleration** 减速度

Further Mathematics

Topics 3–4 · Further Mechanics, Further Probability & Statistics

 **oblique impact** 斜碰撞

 **Further Probability &
Statistics** 进阶概率统计

 **probability density
function** 概率密度函数

 **cumulative distribution
function** 累积分布函数

Computer Science

Topics 4–11 · Processor Fundamentals, Data Types and Structures, Programming

 **file** 文件

 **text file** 文本文件

 **end of file** 文件结束

≡ abstract data type 抽象数据类型

≡ stack 栈

↑ LIFO 后进先出

↓ push 入栈

↑ pop 出栈

≡ queue 队列

→ FIFO 先进先出

→] enqueue 入队

[→ dequeue 出队

↻ linked list 链表

⊙ node 节点

↖ pointer 指针

→ traverse 遍历

⌞ underflow 下溢

↻ circular array 循环数组

≡ free list 空闲列表

≡ record structure 记录结构

↕ bubble sort 冒泡排序

(×) variables 变量

◇ data types 数据类型

🔒 constant 常量

+ operators 运算符

||| library routines 库例程

›≡ nested 嵌套

Economics

Topic 4 · The macroeconomy

↓ slump 萧条

↗ recovery 复苏

📄 claimant count 申领救济人数

📄 labour force survey 劳动力调查

👥 labour force 劳动力

↔ frictional unemployment 摩擦性失业

🏢 structural unemployment 结构性失业

↺ cyclical unemployment 周期性失业

🌞 seasonal unemployment 季节性失业

↗ inflation 通货膨胀

📄 purchasing power 购买力

↘ deflation 通货紧缩

↘ disinflation 反通货膨胀

🛒 consumer price index 消费者价格指数

⚖ weight 权重