
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 9 · Electricity

± ion 离子

☐ semiconductor 半导体

○ hole 空穴

→ conventional current 常规电流

田 quantised 量子化

⊕ elementary charge 基本电荷

⊕ coulomb 库仑

⋮ number density 数密度

→ drift velocity 漂移速度

⚡ potential difference 电势差

四 volt 伏特

⌚ electromotive force 电动势

☑ resistance 电阻

Ω ohm 欧姆

⚡ Ohm's law 欧姆定律

💡 filament lamp 灯丝灯泡

△ diode 二极管

♠ resistivity 电阻率

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			
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 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 8–9 · Databases, Algorithm Design and Problem-solving

 query 查询

 join 连接

 aggregate functions 聚合函数			
 tuple 元组			
 attribute 属性			
 secondary key 次键			
 indexing 索引			
 data management 数据管理			
 data modelling 数据建模			
 logical schema 逻辑模式			
 data integrity 数据完整性			
 data security 数据安全			
 query processor 查询处理器			
 developer interface 开发者接口			
 computational thinking 计算思维			
 abstraction 抽象			
 decomposition 分解			
 algorithm 算法			
 unambiguous 无歧义			
 deterministic 确定性			
 identifier table 标识符表			
 variable 变量			
 data type 数据类型			

 **pseudocode** 伪代码

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