

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

 **breadboard** 面包板
/ˈbredbɔ:d/

 **multimeter** 万用表
/ˌmʌltiˈmi:tə/

 **internal resistance** 内阻
/ɪnˈtɜːnl rɪˈzɪstəns/

 **cell** 电池
/sel/

 **terminal p.d.** 端电压
/ˈtɜːmɪnl ˌpiː ˈdiː/

 **open circuit** 开路
/ˈəʊpən ˈsɜːkt/

 **short circuit** 短路
/ʃɔːt ˈsɜːkt/

 **ammeter** 电流表
/ˈæmɪtə/

 **voltmeter** 电压表
/ˈvɔʊltmɪtə/

 **LED** 发光二极管
/el iː ˈdiː/

 **capacitor** 电容器
/kəˈpæsɪtə/

 **fuse** 保险丝
/fjuːz/

 **junction** 节点
/ˈdʒʌŋkʃn/

 **conservation of charge**
电荷守恒
/kɒnsəˈveɪʃn ɒv tʃɑːdʒ/

 **loop** 回路
/luːp/

 **Kirchhoff's first law** 基尔霍夫第一定律
/ˈkɜːkhɒfs fɜːst lɔː/

 **Kirchhoff's second law**
基尔霍夫第二定律
/ˈkɜːkhɒfs ˈsekənd lɔː/

 **rheostat** 变阻器
/ˈriːəstæt/

 **sensor** 传感器
/ˈsensə/

 **transistor** 晶体管
/træn'zista/

Chemistry

Topic 13 · An introduction to AS Level organic chemistry

 **electrophile** 亲电试剂
/i,lektəu'fai/

+ **addition** 加成
/ə'dɪʃn/

 **substitution** 取代
/,sʌbstɪ'tju:ʃn/

— **elimination** 消去
/i,lɪmɪ'neɪʃn/

 **condensation** 缩合
/kɒndən'seɪʃn/

 **initiation** 引发
/i,nɪʃi'eɪʃn/

 **propagation** 增长
/,prɒpə'geɪʃn/

 **termination** 终止
/tɜ:mi'neɪʃn/

 **free-radical substitution**
自由基取代
/fri: 'rædɪkl ,sʌbstɪ'tju:ʃn/

+ **electrophilic addition** 亲电加成
/i,lektəu'fɪlɪk ə'dɪʃn/

 **nucleophilic substitution**
亲核取代
/nju:kliə'fɪlɪk ,sʌbstɪ'tju:ʃn/

+ **nucleophilic addition** 亲核加成
/nju:kliə'fɪlɪk ə'dɪʃn/

 **curly arrow** 弯箭头
/'kɜ:li 'æroʊ/

 **cyclic** 环状
/'saɪklɪk/

 **planar** 平面
/'pleɪnə/

 **isomerism** 异构
/'aɪsəməɪrɪzəm/

 **structural isomerism** 结构异构
/'strʌktʃərəl 'aɪsəməɪrɪzəm/

 **chain isomerism** 链异构
/'tʃeɪn 'aɪsəməɪrɪzəm/

Biology

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

 **cohesion** 内聚力
/'kəʊ'hi:ʒn/

 **tension** 张力
/'tenʃn/

 **adhesion** 附着力
/əd'hi:ʒn/

 **xerophyte** 旱生植物
/'ziərəʊfaɪt/

 **adapted** 适应
/ə'dæptɪd/

 **cuticle** 角质层
/'kju:tɪkl/

 **source** 源
/sɔ:s/

 **sink** 库
/sɪŋk/

 **proton pump** 质子泵
/'praʊtɒn pʌmp/

 cotransporter protein 协同运输蛋白			
<i>/ˈkɒtrənsˌpɔːtə ˈpraʊtɪn/</i>			
 hydrostatic pressure 静水压			
<i>/ˌhaɪdrəˈstætɪk ˈpreʃə/</i>			
 mass flow 集流			
<i>/mæs fləʊ/</i>			
 blood vessel 血管			
<i>/blʌd ˈvesl/</i>			
 heart 心脏			
<i>/hɑːt/</i>			
 double circulation 双循环			
<i>/'dʌbl ˌsɜːkjəˈleɪʃn/</i>			
 circulatory system 循环系统			
<i>/ˌsɜːkjəˈleɪtəri ˈsɪstəm/</i>			
 pulmonary circulation 肺循环			
<i>/'pʌlmənəri ˌsɜːkjəˈleɪʃn/</i>			
 systemic circulation 体循环			
<i>/sɪˈstemɪk ˌsɜːkjəˈleɪʃn/</i>			
 artery 动脉			
<i>/'ɑːtəri/</i>			
 arteriole 小动脉			
<i>/ɑːˈtɪəriəəl/</i>			
 capillary 毛细血管			
<i>/kəˈpɪləri/</i>			
 venule 小静脉			
<i>/'venjuːl/</i>			

Mathematics			
<i>Topic 4 · Mechanics</i>			
 tension 张力			
<i>/ˈtenʃn/</i>			
 inclined plane 斜面			
<i>/ɪnˈklaɪnd pleɪn/</i>			
 connected particles 连接质点			
<i>/kəˈnektɪd ˈpɑːtɪklz/</i>			
 work done 功			
<i>/wɜːk dʌn/</i>			
 kinetic energy 动能			
<i>/kɪˈnetɪk ˈenədʒi/</i>			
 gravitational potential energy 重力势能			
<i>/ˌgrævɪˈteɪʃənl pəˈtenʃl ˈenədʒi/</i>			
 conservation of energy 能量守恒			
<i>/kɒnsəˈveɪʃn ɒv ˈenədʒi/</i>			
 power 功率			
<i>/'paʊə/</i>			
 limiting equilibrium 极限平衡			
<i>/'lɪmɪtɪŋ ˌɪkwɪˈlɪbrɪəm/</i>			
 deceleration 减速度			
<i>/dɪˌseləˈreɪʃn/</i>			

Further Mathematics			
<i>Topics 3–4 · Further Mechanics, Further Probability & Statistics</i>			
 oblique impact 斜碰撞			
<i>/əˈbliːk ˈɪmpækt/</i>			
 Further Probability & Statistics 进阶概率统计			
<i>/'fɜːðə ˌprɒbəˈbɪlɪtɪ ænd stəˈtɪstɪks/</i>			

 probability density function 概率密度函数			
<i>/ˌprobəˈbiliti ˈdensiti ˈfʌŋkʃn/</i>			
 cumulative distribution function 累积分布函数			
<i>/ˈkjuːmjələtɪv ˌdɪstrɪˈbjʊʃn ˈfʌŋkʃn/</i>			

Computer Science

Topics 5–11 · System Software, Algorithm Design and Problem-solving, Data Types and Structures, Programming

 queue 队列			
<i>/kjuː/</i>			
 FIFO 先进先出			
<i>/ˈfaɪfəʊ/</i>			
 enqueue 入队			
<i>/enˈkjuː/</i>			
 dequeue 出队			
<i>/diːˈkjuː/</i>			
 linked list 链表			
<i>/lɪŋkt lɪst/</i>			
 node 节点			
<i>/nəʊd/</i>			
 pointer 指针			
<i>/ˈpɔɪntə/</i>			
 traverse 遍历			
<i>/trəˈvɜːs/</i>			
 underflow 下溢			
<i>/ˌʌndəˈfləʊ/</i>			
 circular array 循环数组			
<i>/ˈsɜːkjələ əˈreɪ/</i>			
 free list 空闲列表			
<i>/friː lɪst/</i>			
 record structure 记录结构			
<i>/ˈrekɔːd ˈstrʌktʃə/</i>			

 bubble sort 冒泡排序			
<i>/ˈbʌbl sɔːt/</i>			
 variables 变量			
<i>/ˈveəriəblz/</i>			
 data types 数据类型			
<i>/ˈdeɪtə taɪps/</i>			
 constant 常量			
<i>/ˈkɒnstənt/</i>			
 operators 运算符			
<i>/ˈɒpəreɪtəz/</i>			
 library routines 库例程			
<i>/ˈlaɪbrəri ruːˈtiːnz/</i>			
 nested 嵌套			
<i>/ˈnestɪd/</i>			
 count-controlled loop 计数循环			
<i>/kaʊnt kənˈtrəʊld luːp/</i>			
 pre-condition loop 前测循环			
<i>/priː kənˈdɪʃn luːp/</i>			
 post-condition loop 后测循环			
<i>/pəʊst kənˈdɪʃn luːp/</i>			
 structured programming 结构化编程			
<i>/ˈstrʌktʃəd ˈprəʊɡræmɪŋ/</i>			
 parameters 参数			
<i>/pəˈræmɪtəz/</i>			
 function 函数			
<i>/ˈfʌŋkʃn/</i>			
 arguments 实参			
<i>/ˈɑːɡjʊːmənts/</i>			
 pass by value 传值			
<i>/pæs baɪ ˈvæljuː/</i>			
 pass by reference 传引用			
<i>/pæs baɪ ˈrefrəns/</i>			

Economics

Topic 4 · The macroeconomy

↓ slump 萧条			
/slʌmp/			
↗ recovery 复苏			
/rɪ'kʌvəri/			
👤 claimant count 申领救济人数			
/'kleɪmənt kaʊnt/			
👤 labour force survey 劳动力调查			
/'leɪbə fɔːs 'sɜːveɪ/			
👤 labour force 劳动力			
/'leɪbə fɔːs/			
↔ frictional unemployment 摩擦性失业			
/'frɪkʃənəl ʌnem'plɔɪmənt/			
👤 structural unemployment 结构性失业			
/'strʌktʃərəl ʌnem'plɔɪmənt/			
↔ cyclical unemployment 周期性失业			
/'saɪklɪkl ʌnem'plɔɪmənt/			
🌞 seasonal unemployment 季节性失业			
/'siːzənəl ʌnem'plɔɪmənt/			
↗ inflation 通货膨胀			
/ɪn'fleɪʃn/			
👤 purchasing power 购买力			
/'pɜːtʃɪsɪŋ 'paʊə/			
↘ deflation 通货紧缩			
/dɪ'fleɪʃn/			
↘ disinflation 反通货膨胀			
/dɪsɪn'fleɪʃn/			

🛒 consumer price index 消费者价格指数			
/kən'suːmə praɪs 'ɪndeks/			
⚖ weight 权重			
/weɪt/			