

Morning Reading 晨读

Grade 11 · AS · Week 13

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。

Your school runs on a **relational database**, even if you never see it. One **table** stores students, another stores classes. Each row is a **record**; each column, such as name or birthday, is a **field**. Every student has a unique **primary key**, and the class table points to it with a **foreign key**. That link is what makes the database relational: information is stored once and connected, never copied. When the office prints your timetable, a query joins the tables in milliseconds.

Physics this week showed light behaving strangely. Shine one small light through two narrow slits and the screen shows dark and bright stripes. The waves from the two slits show **interference**: where crest meets crest the light is bright; where crest meets trough, darkness. This **double-slit** experiment convinced physicists that light travels as a wave.

Economies swing through the **business cycle**. In a **boom**, jobs are easy to find and firms invest; then demand cools and growth slows, until a **recovery** starts the cycle again.

Talk about it 说一说:

1. Why store a student's name once, in one table, instead of in every class list?
2. Two waves meet and produce darkness. Explain how this is possible.

Physics

Topic 9 · Electricity

 coulomb 库仑			
/ˈkuːlɒm/			
 number density 数密度			
/ˈnʌmbə ˈdensɪti/			
 drift velocity 漂移速度			
/drɪft vəˈlɒstɪ/			

 potential difference 电势差			
/pəˈtenʃl ˈdɪfrəns/			
 volt 伏特			
/vɔʊlt/			
 electromotive force 电动势			
/ɪˌlektərəʊˈmæʊtɪv fɔːs/			
 resistance 电阻			
/rɪˈzɪstəns/			
 ohm 欧姆			
/əʊm/			
 Ohm's law 欧姆定律			
/əʊmz lɔː/			
 filament lamp 灯丝灯泡			
/ˈfɪləmənt læmp/			
 diode 二极管			
/ˈdaɪəʊd/			
 resistivity 电阻率			
/rɪˈzɪstɪvəti/			
 insulator 绝缘体			
/ˈɪnsjuleɪtə/			
 lattice vibration 晶格振动			
/ˈlætɪs vaɪˈbreɪʃn/			
 scatters 散射			
/ˈskætaɪz/			
 light-dependent resistor 光敏电阻			
/laɪt dɪˈpendənt rɪˈzɪstə/			
 light intensity 光强			
/laɪt ɪnˈtensɪti/			
 thermistor 热敏电阻			
/ˈθɜːmɪstə/			

 negative temperature coefficient 负温度系数			
<i>/ˈnegatɪv ˈtemprɪtʃə ˌkəʊˈfɪʃənt/</i>			
 potential divider 分压器			
<i>/pəˈtenʃl dɪˈvaɪdə/</i>			

Chemistry

<i>Topics 12–13 · Nitrogen and sulfur, An introduction to AS Level organic chemistry</i>			
 exhaust gases 尾气			
<i>/egˈzɔːst ˈɡæsɪz/</i>			
 photochemical smog 光化学烟雾			
<i>/ˈfəʊtəʊˈkemɪkl smɒɡ/</i>			
 acid rain 酸雨			
<i>/æsɪd reɪn/</i>			
 sulfur dioxide 二氧化硫			
<i>/ˈsʌlfəː daɪˈɒksaɪd/</i>			
 hydrocarbon 碳氢化合物			
<i>/ˈhaɪdrəˌkɑːbən/</i>			
 alkane 烷烃			
<i>/ælkeɪn/</i>			
 functional group 官能团			
<i>/ˈfʌŋkʃənəl grʊːp/</i>			
 general formula 通式			
<i>/ˈdʒenərəl ˈfɔːmjələ/</i>			
 structural formula 结构式			
<i>/ˈstrʌktʃərəl ˈfɔːmjələ/</i>			
 displayed formula 展开式			
<i>/dɪˈspleɪd ˈfɔːmjələ/</i>			
 skeletal formula 骨架式			
<i>/ˈskeɪtl̩ ˈfɔːmjələ/</i>			
 nomenclature 命名法			
<i>/nəˈmenjkleɪtʃə/</i>			

 homologous series 同系列			
<i>/həˈmɒləɡəs ˈsɪəriːz/</i>			
 saturated 饱和			
<i>/ˈsætʃəreɪtɪd/</i>			
 unsaturated 不饱和			
<i>/ʌnˈsætʃəreɪtɪd/</i>			
 homolytic fission 均裂			
<i>/ˌhɒməˈlɪtɪk ˈfɪʃn/</i>			
 heterolytic fission 异裂			
<i>/ˌhetrəˈlɪtɪk ˈfɪʃn/</i>			
 nucleophile 亲核试剂			
<i>/ˈnjuːkliəfaɪl/</i>			

Biology

<i>Topic 7 · Transport in plants</i>			
 phloem 韧皮部			
<i>/ˈfləʊm/</i>			
 assimilate 同化物			
<i>/əˈsɪmɪleɪt/</i>			
 transverse section 横切面			
<i>/trænsˈvɜːs ˈsekʃn/</i>			
 dicotyledonous plant 双子叶植物			
<i>/dɪkəˈtɪlɪdəˌnəs plænt/</i>			
 vessel 导管			
<i>/ˈvesl/</i>			
 lignin 木质素			
<i>/ˈlɪɡnɪn/</i>			
 sieve tube 筛管			
<i>/sɪv ˈtjuːb/</i>			
 sieve plate 筛板			
<i>/sɪv ˈpleɪt/</i>			

 companion cell 伴胞			
/kəm'pæniən sel/			
 vascular bundle 维管束			
/'væskjələ 'bʌndl/			
 root hair cell 根毛细胞			
/'ru:t heə sel/			
 apoplast pathway 质外体途径			
/'æpəplæst 'pæθwei/			
 symplast pathway 共质体途径			
/'simplæst 'pæθwei/			
 endodermis 内皮层			
/'endəodamis/			
 Casparian strip 凯氏带			
/kæ'speəriən strip/			
 suberin 木栓质			
/'sʌbərin/			
 transpiration 蒸腾作用			
/'trænspe'reɪʃn/			
 evaporation 蒸发			
/'i,væpe'reɪʃn/			
 water vapour 水蒸气			
/'wɔ:tə 'veɪpə/			
 diffuse 扩散			
/'di'fju:z/			
 stomata 气孔			
/'stəʊmətə/			
 atmosphere 大气			
/'ætmasfɪə/			

Mathematics

Topic 4 · Mechanics

 displacement 位移			
/di'spleɪsmənt/			
 velocity 速度			
/'və'lɒsɪti/			
 acceleration 加速度			
/ək'selə'reɪʃn/			
 velocity-time graph 速度时间图			
/'və'lɒsɪti taɪm græf/			
 constant acceleration 匀加速			
/'kɒnstənt ək'selə'reɪʃn/			
 momentum 动量			
/'məʊ'mentəm/			
 conservation of momentum 动量守恒			
/'kɒnsə'veɪʃn ɒv məʊ'mentəm/			
 Newton's laws of motion 牛顿运动定律			
/'nju:tɪnz lɔ:z ɒv 'məʊʃn/			
 mass 质量			
/'mæs/			
 weight 重力			
/'weit/			

Further Mathematics

Topic 3 · Further Mechanics

 bounding parabola 包络抛物线			
/'bəʊndɪŋ pə'ræbələ/			
 lamina 薄片			
/'læmɪnə/			

 coplanar forces 共面力			
/ˈkəʊˈpleɪnə ˈfɔːsɪz/			
 conical pendulum 圆锥摆			
/ˈkɒnɪkl ˈpendjələm/			
 normal contact force 法向接触力			
/ˈnɔːml ˈkɒntækt fɔːs/			

Computer Science

Topics 4–10 · Processor Fundamentals, Algorithm Design and Problem-solving, Data Types and Structures

 pseudocode 伪代码			
/ˈsuːdəʊkəʊd/			
 sequence 顺序			
/ˈsiːkwəns/			
 selection 选择			
/sɪˈleɪʃn/			
 iteration 迭代			
/ˌɪtəˈreɪʃn/			
 loop 循环			
/luːp/			
= assignment 赋值			
/əˈsaɪnmənt/			
 concatenation 拼接			
/kənˌkæʔəˈneɪʃn/			
 structured English 结构化英语			
/ˈstrʌktʃəd ˈɪŋɡlɪʃ/			
 flowchart 流程图			
/ˈfləʊtʃɑːt/			
 stepwise refinement 逐步求精			
/ˈstepwaɪz rɪˈfaɪnmənt/			
 logic statement 逻辑语句			
/ˈlɒdʒɪk ˈsteɪtmənt/			

 precedence 优先级			
/ˈpreɪdəns/			
 De Morgan's law 德摩根定律			
/də ˈmɔːgənz lɔː/			
 procedure 过程			
/prəˈsiːdʒə/			
 array 数组			
/əˈreɪ/			
# index 索引			
/ˈɪndeks/			
• element 元素			
/ˈelɪmənt/			
 bounds 边界			
/bəʊndz/			
 dimension 维度			
/daɪˈmenʃn/			
 linear search 线性查找			
/ˈlɪniə sɜːtʃ/			
 file 文件			
/faɪl/			
 text file 文本文件			
/tekst faɪl/			
 end of file 文件结束			
/end ɒv faɪl/			
 Abstract Data Type 抽象数据类型			
/ˈæbstrækt ˈdeɪtə taɪp/			
 stack 栈			
/stæk/			
 LIFO 后进先出			
/ˈlaɪfəʊ/			
 push 入栈			
/pʊʃ/			

↑ **pop** 出栈
/pɒp/

Economics

Topic 4 · The macroeconomy

🛒 **consumption** 消费
/kən'sʌmpʃn/

📦 **net exports** 净出口
/net 'eksɒts/

📦 **aggregate supply** 总供给
/'ægrɪgeɪt sə'plaɪ/

🕒 **short-run aggregate supply** 短期总供给
/ʃɔ:t rʌn 'ægrɪgeɪt sə'plaɪ/

📦 **long-run aggregate supply** 长期总供给
/lɒŋ rʌn 'ægrɪgeɪt sə'plaɪ/

🏭 **productive capacity** 生产能力
/prə'dʌktɪv kə'pæstɪ/

⚖️ **macroeconomic equilibrium** 宏观经济均衡
/ˌmækrəˌrɪ:kə'nɒmɪk ˌɪkwɪ'libriəm/

💰 **price level** 价格水平
/praɪs 'levl/

📦 **real output** 实际产出
/rɪəl 'aʊtpʊt/

↗️ **actual growth** 实际增长
/'æktʃʊəl grəʊθ/

↗️ **potential growth** 潜在增长
/pə'tenʃl grəʊθ/

🕒 **productivity** 生产率
/ˌprɒdʌk'tɪvɪti/

↺️ **business cycle** 经济周期
/'bɪznəs 'saɪkl/

↗️ **boom** 繁荣
/bu:m/

↘️ **recession** 衰退
/rɪ'seʃn/