
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

Topics 8–9 · Superposition, Electricity

🔊 **ripple tank** 水波槽

📶 **interference** 干涉

= **coherent** 相干

— **slit** 狭缝

= double-slit 双缝			
 path difference 路程差			
 fringe spacing 条纹间距			
 fringe 条纹			
^ maximum 极大			
v minimum 极小			
 diffraction grating 衍射光栅			
+ normal 法线			
 slit spacing 缝间距			
 order 级次			
 electric current 电流			
 charge carrier 载流子			
 electron 电子			
 electrolyte 电解质			

Chemistry

Topics 12–13 · Nitrogen and sulfur, An introduction to AS Level organic chemistry

 exhaust gases 尾气			
 photochemical smog 光化学烟雾			
 acid rain 酸雨			
 sulfur dioxide 二氧化硫			
 hydrocarbon 碳氢化合物			
 alkane 烷烃			

 functional group 官能团			
Σ general formula 通式			
 structural formula 结构式			
 displayed formula 展开式			
 skeletal formula 骨架式			
T nomenclature 命名法			
 homologous series 同系列			
 saturated 饱和			
 unsaturated 不饱和			
 homolytic fission 均裂			
 heterolytic fission 异裂			
 nucleophile 亲核试剂			

Biology

Topic 7 · Transport in plants

 phloem 韧皮部			
 assimilate 同化物			
 transverse section 横切面			
 dicotyledonous plant 双子叶植物			
 vessel 导管			
 lignin 木质素			
 sieve tube 筛管			
 sieve plate 筛板			

 companion cell 伴胞			
 vascular bundle 维管束			
 root hair cell 根毛细胞			
 apoplast pathway 质外体途径			
 symplast pathway 共质体途径			
 endodermis 内皮层			
 Casparian strip 凯氏带			
 suberin 木栓质			
 transpiration 蒸腾作用			
 evaporation 蒸发			
 water vapour 水蒸气			
 diffuse 扩散			
 stomata 气孔			
 atmosphere 大气			

Mathematics

Topic 4 · Mechanics

 displacement 位移			
 velocity 速度			
 acceleration 加速度			
 velocity-time graph 速度时间图			
 constant acceleration 匀加速			

 momentum 动量			
 conservation of momentum 动量守恒			
 Newton's laws of motion 牛顿运动定律			
 mass 质量			
 weight 重力			

Further Mathematics

Topic 3 · Further Mechanics

 bounding parabola 包络抛物线			
 lamina 薄片			
 coplanar forces 共面力			
 conical pendulum 圆锥摆			
 normal contact force 法向接触力			

Computer Science

Topic 8 · Databases

 entity 实体			
 record 记录			
 field 字段			
 primary key 主键			
 foreign key 外键			
 composite key 复合键			
 candidate key 候选键			

 **referential integrity** 参照完整性

 **entity-relationship diagram** 实体关系图

cardinality 基数

 **one-to-many** 一对多

 **link table** 连接表

 **normalisation** 规范化

 **normal forms** 范式

 **atomic** 原子

→ transitive dependency
传递依赖

 **DBMS** 数据库管理系统

 **data dictionary** 数据字典

 **concurrent access** 并发访问

 **transactions** 事务

 **views** 视图

 **SQL** 结构化查询语言

 **Data Definition Language** 数据定义语言

 **Data Manipulation Language** 数据操纵语言

Economics

Topic 4 · The macroeconomy

 **consumption** 消费

 net exports 净出口			
 aggregate supply 总供给			
 short-run aggregate supply 短期总供给			
 long-run aggregate supply 长期总供给			
 productive capacity 生产能力			
 macroeconomic equilibrium 宏观经济均衡			
 price level 价格水平			
 real output 实际产出			
 actual growth 实际增长			
 potential growth 潜在增长			
 productivity 生产率			
 business cycle 经济周期			
 boom 繁荣			
 recession 衰退			