
Morning Reading 晨读

Grade 10 · Week 5

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。

On a cold morning, a metal spoon feels colder than a wooden one, but they have the same temperature. Metal is a good **thermal conductor**: it carries heat away from your warm hand quickly. Wood is a **thermal insulator**. Your coat does not make heat; it traps air, which is a poor conductor, so your body's heat stays close to you. Water needs a lot of energy to warm up because it has a high **specific heat capacity**.

Inside every computer, the processor repeats the **fetch-execute cycle** many millions of times each second. Instructions wait in **memory**, small fast **registers** hold the data being used right now, and a **cache** keeps popular data near the processor, like a pencil case on your desk.

In the market, sellers respond to prices. The **law of supply** says a higher price usually raises the **quantity supplied**. When demand and supply meet, the market reaches **equilibrium**. If the price is set too low, there is a **shortage**.

Talk about it 说一说:

1. Why does a metal chair feel colder than a plastic one in the same room?
2. Concert tickets sell out in one minute. Is the price too high or too low? Explain.

Physics

Topic 1 · Motion, forces and energy

📌 **limit of proportionality**
比例极限

🔗 **spring constant** 弹簧常数

🌀 **friction** 摩擦力

🔄 **moment** 力矩

 pivot 支点			
 equilibrium 平衡			
 centre of gravity 重心			
 lamina 薄片			
 stable 稳定			
 impulse 冲量			
 stored 储存			
 transferred 转移			
 kinetic 动能			
 chemical 化学能			
 elastic (strain) 弹性势能			
 nuclear 核能			
 electrostatic 静电能			
 internal (thermal) 内能			
 Sankey diagram 桑基图			
 wasted 浪费			
 work done 做功			
 joule 焦耳			
 power 功率			

Chemistry

Topics 2–3 · Atoms, elements and compounds, Stoichiometry

 metallic bonding 金属键			
 malleability 展性			

$\leftrightarrow$ ductility 延性			
⚖ stoichiometry 化学计量			
⚗ formula 化学式			
⬡ molecular formula 分子式			
$\div$ empirical formula 实验式			
⚖ relative formula mass 相对式量			
⚖ molar mass 摩尔质量			
≡ molar gas volume 摩尔气体体积			
% percentage composition by mass 质量分数			
⌚ percentage purity 纯度			
% percentage yield 产率			
⬡ molecule 分子			
$\div$ ratio 比例			
⊙ spectator ions 旁观离子			
$=$ ionic equation 离子方程式			
T word equation 文字方程式			
Σ symbol equation 化学方程式			
$\rightarrow$ reactants 反应物			
⬢ products 生成物			
⚖ balanced 配平			

Biology

Topics 4–6 · Biological molecules, Enzymes, Plant nutrition

 fats 脂肪			
 carbon 碳			
 hydrogen 氢			
 nitrogen 氮			
 starch 淀粉			
 glycogen 糖原			
 glucose 葡萄糖			
 amino acids 氨基酸			
 fatty acids 脂肪酸			
 glycerol 甘油			
 iodine solution 碘液			
 reducing sugars 还原糖			
 Benedict's solution 本尼迪特试剂			
 biuret 双缩脲			
 ethanol 乙醇			
 emulsion 乳浊液			
 vitamin 维生素			
 strands 链			
 double helix 双螺旋			
 bases 碱基			
 bonds 化学键			

 catalyst 催化剂			
 rate 速率			
 chemical reaction 化学反应			
 enzymes 酶			
 active site 活性位点			
 substrate 底物			
 complementary 互补			
 enzyme-substrate complex 酶底物复合物			
 products 产物			
 specific 专一			
 collisions 碰撞			
 optimum temperature 最适温度			
 denatured 变性			
 raw materials 原料			
 pigment 色素			
 cell walls 细胞壁			

Mathematics

Topics 1-2 · Number, Algebra and graphs

 lower bound 下界			
 upper bound 上界			
 area 面积			
 time zone 时区			

$\rightleftarrows$ exchange rate 汇率			
(x) algebra 代数			
(x) variable 变量			
$\hookrightarrow$ substitute 代入			
$\diamond$ term 项			
() expression 表达式			
$\square$ like terms 同类项			
$\times$ coefficient 系数			
[] expand 展开			
[] brackets 括号			
$\nearrow$ factorise 因式分解			
$\square$ difference of two squares 平方差			
$\square$ perfect square 完全平方			

Computer Science

Topic 3 · Hardware

$\cup$ control bus 控制总线			
$\equiv$ program counter 程序计数器			
$\odot$ memory address register 内存地址寄存器			
$\boxplus$ memory data register 内存数据寄存器			
$\equiv$ current instruction register 当前指令寄存器			
$+$ accumulator 累加器			

↺ fetch-execute cycle 取指
执行周期

💾 memory 内存

⚡ Cache 高速缓存

🖨 cores 核心

🕒 clock speed 时钟速度

🖨 embedded system 嵌入式
系统

📊 barcode scanner 条形码
扫描器

📊 QR code scanner 二维码
扫描器

🖨 optical mouse 光电鼠标

📊 sensors 传感器

🖨 touch screen 触摸屏

🔗 resistive 电阻式

⚡ capacitive 电容式

🔗 infrared 红外线

Economics

Topic 2 · The allocation of resources

↗ direct relationship 正向
关系

quantity supplied 供给量

↗ supply curve 供给曲线

💰 costs of production 生产
成本

 technology 技术			
 tax 税收			
 subsidy 补贴			
 equilibrium 均衡			
 disequilibrium 非均衡			
 excess demand 超额需求			
 shortage 短缺			
 excess supply 超额供给			
 surplus 过剩			
 price elasticity of demand 需求价格弹性			

English

Topic 2 · Writing: purpose, audience and accuracy

 informal 非正式			
 slang 俚语			
 plan 计划			
 linking words 衔接词			
 range 多样性			
 accuracy 准确性			
 tenses 时态			