
Morning Reading 晨读

Grade 11 · AS · Week 10

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。

Pluck a guitar string and the sound you hear left the string as a **progressive wave** through the air. Its **frequency**, measured in **hertz**, sets the pitch; its **amplitude** sets the loudness. The air is pushed back and forth along the direction of travel, so sound is a **longitudinal wave**; light, vibrating across its direction of travel, is a **transverse wave**.

Malicious software comes in families, and the names matter. A **virus** attaches itself to a real program and spreads when the program runs; a **worm** travels through **networks** on its own. A **Trojan horse** pretends to be something useful. **Spyware** quietly watches what you type, and **ransomware** locks your files and demands payment. Most attacks still begin with **phishing**, a fake message that harvests passwords from busy people.

When one firm controls a market, it is a **monopoly**, and it may raise prices above the competitive level. Governments answer with **regulation** or, for essentials, a legal **maximum price**.

Talk about it 说一说:

1. Which is more dangerous: a virus or a phishing email? Argue your case.
2. Your city has one water company. Why might the government watch its prices?

Physics

Topics 7-8 · Waves, Superposition

👁 **observer** 观察者

🔊 **Doppler effect** 多普勒效应

📶 **electromagnetic spectrum** 电磁波谱

 **microwaves** 微波

 **infrared** 红外线

 **ultraviolet** 紫外线

 **X-rays** X 射线

 **Polarisation** 偏振

 **Plane-polarised** 平面偏振

 **polarising filter** 偏振片

 **transmission axis** 透光轴

 **Malus's law** 马吕斯定律

 **vector sum** 矢量和

 **superposition** 叠加

 **constructive interference** 相长干涉

 **trough** 波谷

 **destructive interference**
相消干涉

 **stationary wave** 驻波

 **reflected** 反射

 **node** 波节

Chemistry

Topic 7 · Equilibria

 **equilibrium constant** 平衡常数

 **partial pressure** 分压

 **mole fraction** 摩尔分数

 Haber process 哈伯法			
 Contact process 接触法			
 acid 酸			
+ proton donor 质子供体			
 base 碱			
— proton acceptor 质子受体			
 strong acid 强酸			
 strong base 强碱			
 dissociated 解离			
 weak acid 弱酸			
 weak base 弱碱			
 universal indicator 通用指示剂			
 Neutralisation 中和			
 salt 盐			
 titration curve 滴定曲线			

Biology

Topics 4–5 · Cell membranes and transport, The mitotic cell cycle

 dialysis tubing 透析袋			
 solute 溶质			
 distilled water 蒸馏水			
 turgid 膨胀			
 plasmolysis 质壁分离			
 haemolysis 溶血			

 chromosome 染色体			
 histone 组蛋白			
 replication 复制			
 sister chromatids 姐妹染色单体			
• centromere 着丝粒			
 telomere 端粒			
 mitosis 有丝分裂			
 daughter cell 子细胞			
 gene 基因			
 multicellular 多细胞			
 organism 生物体			
 tissue 组织			
 asexual reproduction 无性生殖			
 cell cycle 细胞周期			
 interphase 间期			
 cytokinesis 胞质分裂			
 stem cell 干细胞			

Mathematics

Topic 2 · Pure Mathematics 2

 cosecant 余割			
 cotangent 余切			
= trigonometric identities 三角恒等式			

+ compound angle 复合角			
□ double angle 二倍角			
f R-formula 辅助角公式			
× product rule 乘积法则			
÷ quotient rule 商法则			
(x) parametric equations 参数方程			
↯ implicitly 隐式			

Further Mathematics

Topic 3 · Further Mechanics

⚖ equilibrium 平衡			
⚡ toppling 翻倒			
→ sliding 滑动			
↻ angular speed 角速度			
⊙ centripetal acceleration 向心加速度			

Computer Science

Topics 7–8 · Ethics and Ownership, Databases

🔒 confidentiality 保密性			
⚔ conflicts of interest 利益冲突			
© intellectual property 知识产权			
© Copyright 版权			
📜 patent 专利			

 software licence 软件许可证			
 proprietary 专有			
 open-source 开源			
 copyleft 著佐权			
 freeware 免费软件			
 shareware 共享软件			
 Artificial intelligence 人工智能			
 machine learning 机器学习			
 Deep learning 深度学习			
 neural networks 神经网络			
 speech recognition 语音识别			
 image recognition 图像识别			
 machine translation 机器翻译			
 recommendation systems 推荐系统			
 autonomous vehicles 自动驾驶汽车			
 optical character recognition 光学字符识别			
 text-to-speech 文本转语音			
 bias 偏见			

 flat files 平面文件			
 data redundancy 数据冗余			
 data inconsistency 数据不一致			
 relational database 关系数据库			
 table 表			

Economics

Topic 3 · Government microeconomic intervention

 external benefit 外部收益			
 monopoly 垄断			
 monopoly power 垄断势力			
 inequality 不平等			
 asymmetric information 信息不对称			
 indirect tax 间接税			
 incidence of a tax 税收归宿			
 maximum price 最高限价			
 minimum price 最低限价			
 buffer stock 缓冲库存			
 regulation 管制			
 state provision 政府提供			
 tradable permits 可交易许可证			

↘ **government failure** 政府
失灵

↻ **black market** 黑市
