
Morning Reading 晨读

Grade 11 · AS · Week 12

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。

A student asks an image generator for a painting "in the style of a famous artist", and in seconds it appears. **Artificial intelligence** systems learn patterns from millions of examples; this is **machine learning**, and the deepest versions use **neural networks** loosely inspired by the brain. But who owns the picture? The artists whose work trained the model were never asked. **Copyright** law protects creative work, and **intellectual property** in general, yet it was written long before **deep learning** existed. Some programmers choose **open-source** licences that invite sharing; others sell **proprietary** software and guard the code.

In physics, two waves meeting on a string add together: this is **superposition**. Send waves down a rope tied at one end and the reflections combine into a **stationary wave**, with still points called **nodes** and wildly moving points called **antinodes**, the physics behind every guitar note.

Economists picture money moving in a **circular flow of income** between households and firms. **Injections** such as **investment** enlarge the flow; **leakages** such as **saving** shrink it.

Talk about it 说一说:

1. Should an AI image trained on an artist's work need the artist's permission?
2. Press a guitar string at its middle. Predict what happens to the note.

Physics

Topics 7-8 · Waves, Superposition

≡ **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

Λ **stationary wave** 驻波

[:] **reflected** 反射

• **node** 波节

○ **antinode** 波腹

↔ **antiphase** 反相

□ **resonance tube** 共鸣管

— **fundamental** 基频

⊞ **diffraction** 衍射

□ **obstacle** 障碍物

Chemistry

Topics 10–12 · Group 2, Group 17, Nitrogen and sulfur

△ **carbonate** 碳酸盐

↗ **thermal decomposition**
热分解

⊗ **nitrate** 硝酸盐

☑ **thermal stability** 热稳定性

 halogen 卤素			
 volatility 挥发性			
 hydrogen halide 卤化氢			
 halide ion 卤离子			
 ammonia 氨			
 precipitate 沉淀			
 water purification 水净化			
 bacteria 细菌			
= triple bond 三键			
 basicity 碱性			
 ammonium ion 铵离子			
→ displacement 置换			
 internal combustion engine 内燃机			
 catalytic converter 催化转化器			

Biology

Topics 6–7 · Nucleic acids and protein synthesis, Transport in plants

 base pair 碱基对			
↕ antiparallel 反平行			
 semi-conservative replication 半保留复制			
 polymerase 聚合酶			
→ leading strand 前导链			
← lagging strand 后随链			

 ligase 连接酶			
{} triplet 三联体			
{} codon 密码子			
 transcription 转录			
 template strand 模板链			
 non-transcribed strand 非转录链			
 primary transcript 初级 转录本			
✓ exon 外显子			
✂ intron 内含子			
↔ translation 翻译			
{} anticodon 反密码子			
↯ mutation 突变			
↔ substitution 替换			
 deletion 缺失			
⊕ insertion 插入			
↑ xylem 木质部			
💎 mineral ion 矿物离子			

Mathematics

Topic 4 · Mechanics

↗ resultant 合力			
⚖ equilibrium 平衡			
↑ contact force 接触力			

↑ **normal reaction** 法向反作用力

🔥 **friction** 摩擦力

⚠️ **limiting friction** 最大静摩擦力

✖ **coefficient of friction** 摩擦系数

↔ **Newton's third law** 牛顿第三定律

📏 **distance** 距离

🏎️ **speed** 速率

Further Mathematics

Topic 3 · Further Mechanics

📐 **differential equation** 微分方程

⚖️ **variable force** 变力

↔ **conservation of momentum** 动量守恒

🍏 **Newton's experimental law** 牛顿实验定律

% **coefficient of restitution** 恢复系数

Computer Science

Topics 7-8 · Ethics and Ownership, Databases

👤 **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 4 · The macroeconomy

📈 distribution 分配

🔄 informal economy 非正规
经济

↻ circular flow of income
收入循环流

🏠 household 家庭

💧 leakages 漏出

🐷 saving 储蓄

💰 taxation 税收

⚓ imports 进口

💉 injections 注入

📈 investment 投资

🏛 government spending 政
府支出

🚚 exports 出口

🔒 closed economy 封闭经济

🔓 open economy 开放经济

👤 aggregate demand 总需
求