
Morning Reading 晨读

Grade 11 · AS · Week 2

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。

Scientists and economists both build models. A **model** is a simplified picture of the world that keeps the important parts and drops the rest. A map is a model: it ignores every tree, and that is exactly why it is useful. Economists add the phrase **ceteris paribus**, "all other things equal", to study one change at a time. Be careful to separate a **positive statement**, which can be tested against facts, from a **normative statement**, which contains a **value judgement** about what ought to happen.

Mathematics gives models their shape. A **quadratic equation** draws a **parabola**, the curve a thrown ball follows. A **function** is a machine: for each input from its **domain**, it returns exactly one output.

In physics the model is often an equation linking quantities: **force** in **newtons**, **energy** in **joules**, **power** in **watts**, **pressure** in **pascals**. Each unit is built from the base units, and checking them catches many mistakes.

Talk about it 说一说:

1. "Petrol prices should be lower" and "petrol prices rose 5% last year": which is normative, which is positive?
2. A map ignores trees. What does a distance-time graph ignore about a real journey?

Physics

Topic 1 · Physical quantities and units

🍏 **newton** 牛顿

🔧 **work** 功

⚡ **energy** 能量

🔊 **joule** 焦耳

 power 功率			
 watt 瓦特			
 pressure 压强			
 stress 应力			
 pascal 帕斯卡			
= homogeneous 量纲一致			
×₂ prefix 词头			
 measurement 测量			
 uncertainty 不确定度			
 systematic error 系统误差			
 zero error 零点误差			
 calibration 校准			
 parallax 视差			
 accuracy 准确度			
 precision 精密度			
 random error 随机误差			

Chemistry

Topic 1 · Atomic structure

 period 周期			
 nuclear charge 核电荷			
 shielding 屏蔽			
 group 族			
 cation 阳离子			

 anion 阴离子			
 repulsion 排斥			
 isotope 同位素			
 chemical properties 化学性质			
 physical properties 物理性质			
 density 密度			
 principal quantum number 主量子数			
 sub-shell 亚层			
 orbital 轨道			
 electronic configuration 电子排布			
 ground state 基态			
 noble gas 稀有气体			
 spin 自旋			

Biology

Topic 1 · Cell structure

 eukaryotic cell 真核细胞			
 nucleus 细胞核			
 organelle 细胞器			
 cytoplasm 细胞质			
 cell surface membrane 细胞膜			
 nuclear envelope 核膜			

⊙ nucleolus 核仁			
🌀 rough endoplasmic reticulum 粗面内质网			
✈ protein 蛋白质			
🛡 antibody 抗体			
🌀 smooth endoplasmic reticulum 滑面内质网			
💧 lipid 脂质			
📦 Golgi body 高尔基体			
⊙ vesicle 囊泡			
💧 secretion 分泌			
🔍 mitochondria 线粒体			
⇌ respiration 呼吸作用			
⚡ energy 能量			
⊙ ribosome 核糖体			
✈ amino acid 氨基酸			
🏭 synthesise 合成			
⊙ lysosome 溶酶体			
✂ enzyme 酶			

Mathematics

Topic 1 · Pure Mathematics 1

= quadratic equation 二次方程			
<> quadratic inequality 二次不等式			

 parabola 抛物线			
 simultaneous equations 联立方程			
 substitution 代入			
 function 函数			
 domain 定义域			
 range 值域			
 one-one 一一对应			
 inverse function 反函数			

Further Mathematics

Topic 1 · Further Pure Mathematics 1

 oblique asymptote 斜渐近线			
 method of differences 差分法			
 convergent 收敛			
 sum to infinity 无穷和			
 matrix 矩阵			

Computer Science

Topics 1-2 · Information representation, Communication

 analogue data 模拟数据			
 digital data 数字数据			
 sampling 采样			
 sampling rate 采样率			

 **sampling resolution** 采样
分辨率

 **amplitude** 振幅

 **quantisation** 量化

 **Compression** 压缩

 **bandwidth** 带宽

 **lossless** 无损

 **lossy** 有损

 **run-length encoding** 行
程编码

 **dictionary methods** 字典
编码

 **Huffman coding** 霍夫曼
编码

 **entropy** 熵

 **spatial** 空间

 **temporal** 时间

 **network** 网络

 **local area network** 局域
网

 **latency** 延迟

 **wide area network** 广域
网

 **peer-to-peer** 对等网络

 **thin client** 瘦客户端

 **thick client** 胖客户端

 **topology** 拓扑

 bus 总线

 star 星形

 mesh 网状

Economics

Topic 1 · Basic economic ideas and resource allocation

 model 模型

 ceteris paribus 其他条件
不变

 positive statement 实证
表述

 normative statement 规
范表述

 value judgement 价值判
断

 microeconomics 微观经济
学

 macroeconomics 宏观经
济学

 output 产出

 factors of production 生
产要素

 reward 报酬

 land 土地

 rent 地租

 labour 劳动

 wages 工资

 capital 资本