
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

🌀 speed 速率

🌀 velocity 速度

→ force 力

🌀 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			

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

Topic 1 · Information representation

 **file header** 文件头

 **image resolution** 图像分
辨率

 **screen resolution** 屏幕分
辨率

 **colour depth** 颜色深度

 **bit depth** 位深度

 **vector graphic** 矢量图形

 drawing list 绘图列表			
 drawing object 绘图对象			
 primitive 图元			
 property 属性			
 render 渲染			
 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			

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			