
Morning Reading 晨读

Grade 11 · AS · Week 11

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。

How big is an economy? Add up the value of everything produced inside the country in a year and you get the **gross domestic product**. But be careful with rising prices: **nominal** GDP can grow while the country actually makes no more than before. **Real** GDP removes the effect of inflation, and dividing by the population gives GDP **per capita**, a rough measure of the average person's income. Rough, because it says nothing about how income is shared, or about unpaid work at home.

An ambulance races past and its siren drops in pitch as it passes. This is the **Doppler effect**: waves from an approaching **source** reach the **observer** squeezed together, at higher frequency; as the source leaves, the waves stretch out. Astronomers use exactly this to show distant galaxies rushing away from us.

To keep data honest on its journey, computers add checks: a **parity check** counts ones, a **checksum** sums the bytes, and **encryption** with a **public key** and a **private key** keeps the content secret.

Talk about it 说一说:

1. Nominal GDP rose 5%, inflation was 5%. Did the economy really grow?
2. Where else have you heard the Doppler effect? Describe the sound.

Physics

Topics 7-8 · Waves, Superposition

• node 波节			
○ antinode 波腹			
↔ antiphase 反相			
🗄 resonance tube 共鸣管			
— fundamental 基频			
▣ Diffraction 衍射			
□ obstacle 障碍物			
🌊 ripple tank 水波槽			
📶 Interference 干涉			
= coherent 相干			
= double-slit 双缝			
📏 path difference 路程差			
▤ fringe spacing 条纹间距			
▤ fringe 条纹			
^ maximum 极大			
v minimum 极小			
▣ diffraction grating 衍射光栅			
+ normal 法线			
▤ slit spacing 缝间距			

Chemistry

Topics 7-10 · Equilibria, Reaction kinetics, The Periodic Table: chemical periodicity, Group 2

 indicator 指示剂			
 rate of reaction 反应速率			
 collision frequency 碰撞频率			
 effective collision 有效碰撞			
 non-effective collision 无效碰撞			
 Boltzmann distribution 玻尔兹曼分布			
 catalysis 催化作用			
 reaction mechanism 反应机理			
 homogeneous catalyst 均相催化剂			
 heterogeneous catalyst 多相催化剂			
 periodicity 周期性			
 valence shell 价层			
 oxide 氧化物			
 amphoteric 两性			
 hydroxide 氢氧化物			
 hydrolysis 水解			
 reactivity 反应活性			
 sulfate 硫酸盐			

Biology

Topics 5–6 · The mitotic cell cycle, Nucleic acids and protein synthesis

🔗 differentiate 分化

⊙ tumour 肿瘤

○ prophase 前期

🌀 spindle 纺锤体

≡ metaphase 中期

— equator 赤道

↔ anaphase 后期

↗ telophase 末期

□ nucleotide 核苷酸

⊙ base 碱基

□ adenine 腺嘌呤

⬡ ribose 核糖

⬡ purine 嘌呤

□ guanine 鸟嘌呤

⊙ pyrimidine 嘧啶

□ cytosine 胞嘧啶

⊙ thymine 胸腺嘧啶

□ uracil 尿嘧啶

🌀 double helix 双螺旋

— strand 链

⬡ deoxyribose 脱氧核糖

🌀 phosphodiester bond 磷酸二酯键

☞ complementary base
pairing 碱基互补配对

Mathematics

Topics 2–4 · Pure Mathematics 2, Mechanics

△ trapezium rule 梯形法则

√ root 根

↕ sign change 变号

↔ iteration 迭代

↔ iterative formula 迭代公式

∞ converge 收敛

∫ integration by
substitution 换元积分

⚙ Mechanics 力学

→ force 力

↗ components 分量

Further Mathematics

Topic 3 · Further Mechanics

○ horizontal circle 水平圆

○ vertical circle 竖直圆

↔ Hooke's law 胡克定律

↗ modulus of elasticity 弹性模量

↗ elastic potential energy
弹性势能

Computer Science

Topics 7-8 · Ethics and Ownership, Databases

 **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

 **entity** 实体

 **record** 记录

 field 字段			
 primary key 主键			
 foreign key 外键			
 composite key 复合键			
 candidate key 候选键			
 referential integrity 参照完整性			
 entity-relationship diagram 实体关系图			
 cardinality 基数			
 one-to-many 一对多			
 link table 连接表			
 normalisation 规范化			

Economics

Topics 3-4 · Government microeconomic intervention, The macroeconomy

 flow 流量			
 wealth 财富			
 stock 存量			
 progressive tax 累进税			
 percentage 百分比			
 benefits 福利金			
 transfer payments 转移支付			
 redistribution 再分配			
 national income 国民收入			

④ gross domestic product 国内生产总值	_____	_____	_____
④ gross national income 国 民总收入	_____	_____	_____
④ nominal 名义	_____	_____	_____
④ real 实际	_____	_____	_____
④ per capita 人均	_____	_____	_____
④ standard of living 生活水 平	_____	_____	_____