
Morning Reading 晨读

Grade 10 · Week 7

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。

Why does a straw look bent in a glass of water? Light changes direction when it moves from water into air. This is **refraction**. Glasses and cameras use a **converging lens** to bend light and make a clear **real image**. The distance from the lens to its **principal focus** is the **focal length**. Even the internet uses light: an **optical fibre** is a thin glass thread that carries light signals under the sea. The light cannot escape, because it always hits the wall of the fibre at more than the **critical angle**.

A computer is two things working together. **Hardware** is the physical machine you can touch. **Software** is the **programs** that tell it what to do. The most important program is the **operating system**: it starts the computer, manages memory, and runs your apps.

Markets are useful, but they are not perfect. A factory may make cheap toys but dirty the river. The factory pays its **private cost**, yet the village pays an **external cost**. Together these make the **social cost**. Economists call this **market failure**.

Talk about it 说一说:

1. Where have you seen refraction this week? Describe it.
2. A firework factory moves next to your school. What external costs does it bring?

Physics

Topics 2-3 · Thermal physics, Waves

☼ thermal radiation 热辐射

↔ thermal expansion 热膨胀

❄ absolute zero 绝对零度

↻ Brownian motion 布朗运动

❄ kelvin 开尔文

🔥 specific heat capacity 比热容

☁ evaporation 蒸发

❄ cools down 冷却

⚡ conduction 热传导

🔗 delocalised electrons 自由电子

≡ convection 对流

🌊 infrared 红外线

○ dull 暗淡

☉ emitter 发射体

📡 absorber 吸收体

📡 reflector 反射体

≡ wave 波

🌀 wave speed 波速

🌊 transverse wave 横波

≡ longitudinal wave 纵波

» wavefront 波前			
 wavelength 波长			
 frequency 频率			

Chemistry

Topics 4-10 · Electrochemistry, Chemical energetics, Chemistry of the environment

 bromine 溴			
 chlorine 氯气			
 sulfuric acid 硫酸			
 oxygen 氧气			
 external circuit 外电路			
↓ reduction 还原			
↑ oxidation 氧化			
÷ half-equation 半反应式			
 copper 铜			
 electroplating 电镀			
 corrosion 腐蚀			
 pollutants 污染物			
 cancer 癌症			
 exothermic reaction 放热反应			
 endothermic reaction 吸热反应			
 reaction pathway diagram 反应进程图			
 activation energy 活化能			

🔗 bond energy 键能

🔗 bond breaking 断键

🔗 bond making 成键

🌿 surroundings 环境

🔥 combustion 燃烧

Biology

Topic 7 · Human nutrition

↓ rectum 直肠

⦿ anus 肛门

💧 salivary glands 唾液腺

🌀 pancreas 胰腺

🛡 liver 肝脏

💧 gall bladder 胆囊

📥 ingestion 摄入

🍏 nutrients 营养物质

→| assimilation 同化

🗑 egestion 排遗

🗑 faeces 粪便

😊 teeth 牙齿

✂ incisors 门齿

△ canines 犬齿

□ premolars 前臼齿

□ molars 臼齿

 enamel 牙釉质			
 dentine 牙本质			
 pulp 牙髓			
 nerves 神经			
 blood vessels 血管			
 cement 牙骨质			
 gums 牙龈			
 bile 胆汁			
 emulsifies 乳化			
 lipase 脂肪酶			
 insoluble 不溶性			
 soluble 可溶性			
 amylase 淀粉酶			
 protease 蛋白酶			
 hydrochloric acid 盐酸			
 gastric juice 胃液			
 microorganisms 微生物			
 acidic 酸性			
 maltose 麦芽糖			
 maltase 麦芽糖酶			
 epithelium 上皮			

Mathematics

Topic 2 · Algebra and graphs

 **cubic** 三次

 **exponential sequence** 指数数列

 **direct proportion** 正比例

 **constant** 常数

 **inverse proportion** 反比例

 **gradient** 斜率

 **rate of change** 变化率

 **travel graph** 行程图

 **conversion graph** 换算图

 **acceleration** 加速度

 **deceleration** 减速度

 **distance** 距离

 **table of values** 数值表

 **coordinates** 坐标

 **axis** 坐标轴

 **roots** 根

 **intersection point** 交点

Computer Science

Topic 4 · Software

 **Hardware** 硬件

 **physical** 物理的

 **Software** 软件

 **programs** 程序

 **System software** 系统软件

 **operating system** 操作系统

 **compiler** 编译器

 **linker** 链接器

 **device driver** 设备驱动程序

 **utility software** 实用程序

 **Application software** 应用软件

 **word processing** 文字处理

 **spreadsheet** 电子表格

 **database management system** 数据库管理系统

 **web browser** 网页浏览器

 **user interface** 用户界面

 **peripherals** 外围设备

 **multitasking** 多任务处理

 **platform** 平台

 **interrupt** 中断

Economics

Topic 2 · The allocation of resources

 **external cost** 外部成本

 **social cost** 社会成本

 **private benefit** 私人效益

 **external benefit** 外部效益

 **social benefit** 社会效益

 **merit goods** 有益物品

 **demerit goods** 有害物品

 **public goods** 公共物品

 **monopoly** 垄断

 **mixed economy** 混合经济

 **private sector** 私营部门

 **public sector** 公共部门

 **intervention** 干预

 **maximum price** 最高价格

English

Topic 3 · Writing an informal email

 **tone** 语气

 **greeting** 问候语

 **closing** 结束语

 **paragraphs** 段落

↖ **short forms** 缩略形式

[] **developed** 展开的

☞ **reason** 原因
