
Morning Reading 晨读

Grade 10 · Week 13

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。

Where does electricity come from? In a power station, a huge **coil** of wire spins inside a magnetic field. Moving a wire through a magnetic field creates a current. This is **electromagnetic induction**, and the machine is called an **a.c. generator**. Wind turbines, coal plants and dams all work this same way: something spins the coil, and electricity flows out.

Machines are also learning to think. **Expert systems** ask questions and give advice, like a doctor's assistant. **Self-driving cars** read the road with cameras and sensors. Today's systems are **narrow AI**: each one is clever at a single task, but it cannot do anything else.

How do we know if a country is doing well? Economists add up the value of everything it makes in a year: the **gross domestic product**. The economy moves in a **business cycle**: a **boom** with many jobs, then sometimes a **recession** when spending falls, and later a **recovery**. The central bank uses **monetary policy**, mainly the interest rate, to steady the ride.

Talk about it 说一说:

1. Trace the energy: how does a windy day become the light in your room?
2. Would you trust a self-driving taxi today? Give one reason for and one against.

Physics

Topics 4-5 · Electricity and magnetism, Nuclear physics

🔊 **loudspeaker** 扬声器

🌀 **electromagnetic induction** 电磁感应

 **a.c. generator** 交流发电机

 **slip rings** 滑环

 **brushes** 电刷

 **deflect** 偏转

 **turning effect** 转动效应

 **split-ring commutator**
换向器

 **step-up** 升压

 **step-down** 降压

 **high-voltage transmission** 高压输电

 **atom** 原子

 **orbit** 轨道

 **charge** 电荷

 **alpha particle** α 粒子

 **beta particle** β 粒子

 **gold foil** 金箔

 **scattering** 散射

 **nucleon** 核子

 **nucleus** 原子核

Chemistry

Topics 4–10 · Electrochemistry, Metals, Chemistry of the environment

 **lead** 铅

 **aluminium** 铝

 magnesium 镁			
 rusting 生锈			
 rust 铁锈			
 barrier methods 隔离法			
 galvanising 镀锌			
 sacrificial protection 牺牲保护			
 ore 矿石			
 hematite 赤铁矿			
 blast furnace 高炉			
 limestone 石灰石			
 slag 炉渣			
 bauxite 铝土矿			
 cryolite 冰晶石			
 distilled water 蒸馏水			
 impurities 杂质			
 sewage 污水			
 microbes 微生物			
 phosphates 磷酸盐			
 aquatic life 水生生物			
 minerals 矿物质			

Biology

Topics 14–16 · Coordination and response, Drugs, Reproduction

 duration 持续时间			
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 homeostasis 稳态			
 negative feedback 负反馈			
 set point 设定点			
 diabetes 糖尿病			
 sweat glands 汗腺			
 sweating 出汗			
 hair erector muscles 立毛肌			
 fatty tissue 脂肪组织			
 insulation 隔热			
 arterioles 小动脉			
 vasodilation 血管舒张			
 shiver 颤抖			
 vasoconstriction 血管收缩			
 tropism 向性			
 gravitropism 向地性			
 gravity 重力			
 phototropism 向光性			
 auxin 生长素			
 shoot 嫩枝			
 elongate 伸长			
 drug 药物			
 chemical reactions 化学反应			

 antibiotics 抗生素			
 infections 感染			
 resistant 耐药			
 asexual reproduction 无性生殖			
 parent 亲本			
 offspring 后代			
 sexual reproduction 有性生殖			
 fusion 融合			
 nuclei 细胞核			
 zygote 合子			
 fertilisation 受精			
 variation 变异			
 haploid 单倍体			
 chromosomes 染色体			

Mathematics

Topics 4–5 · Geometry, Mensuration

 cube 立方体			
 cuboid 长方体			
 prism 棱柱			
 cylinder 圆柱			
 pyramid 棱锥			
 cone 圆锥			

○ sphere 球			
○ hemisphere 半球			
△ frustum 平截头体			
□ face 面			
— edge 棱			
≡ surface 表面			
📏 metric 公制			
📦 capacity 容量			
⬜ perimeter 周长			
↑↓ height 高			

Computer Science

Topic 7

🔍 design 设计			
<> coding 编码			
🧪 testing 测试			
≡ abstraction 抽象			
↗ decomposition 分解			
🔗 sub-systems 子系统			
🔑 structure diagram 结构图			
↺ iterative testing 迭代测试			
📊 test data 测试数据			
🔄 flowchart 流程图			
📄 pseudocode 伪代码			

 algorithm 算法			
 input 输入			
 processing 处理			
 output 输出			
 validation 验证			
 range check 范围检查			
 length check 长度检查			
 type check 类型检查			
 presence check 存在性检查			

Economics

Topic 4 · Government and the macroeconomy

 Supply-side policy 供给侧政策			
 privatisation 私有化			
 deregulation 放松管制			
 incentives 激励			
 gross domestic product 国内生产总值			
 Real 实际			
 business cycle 经济周期			
 boom 繁荣			
 recession 衰退			
 slump 萧条			
 recovery 复苏			

 living standards 生活水平			
 claimant count 失业救济申领人数			
 unemployment benefit 失业救济金			

English

Topic 9 · Listening skills

 recording 录音			
 specific 具体的			
 directions 方向			
 feelings 感受			
 connect 连接			
 suggests 暗示			