
Morning Reading 晨读

Grade 10 · Week 18

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。

Look up on a clear night. Every star you see belongs to our **galaxy**, the **Milky Way**, a slowly turning city of more than one hundred billion stars. Distances in space are so huge that we measure them in **light-years**, the distance light travels in one year. When a giant star dies, it can explode as a **supernova**, and the heaviest ones collapse into a **black hole**, whose gravity is so strong that even light cannot escape. The **Universe** contains billions of galaxies like ours.

Astronomers keep their star data in databases and search it with **structured query language**. A **query** like `SELECT name FROM stars WHERE distance < 10` finds every star within ten light-years. Underneath, computers decide everything with **Boolean logic**: an **AND gate** outputs true only if both inputs are true; an **OR gate** needs just one. A **truth table** lists every case.

Money also travels between countries. The **exchange rate** is the price of one **currency** in another. When the yuan buys more dollars than before, it has seen an **appreciation**.

Talk about it 说一说:

1. If a star is 100 light-years away, when did the light you see leave it?
2. You are travelling abroad and the yuan appreciates. Is your trip cheaper or dearer? Why?

Physics

Topics 3-6 · Waves, Electricity and magnetism, Space physics

☆ **neutron star** 中子星

☒ **nuclear reaction** 核反应

✧ **galaxy** 星系

 Milky Way 银河系			
 light-year 光年			
— diameter 直径			
 Universe 宇宙			
 interstellar cloud 星际云			
 protostar 原恒星			
 fuel 燃料			
 nebula 星云			
 red supergiant 红超巨星			
 supernova 超新星			
 black hole 黑洞			
← receding 退行			
→ redshift 红移			
[] expanding 膨胀			
 Big Bang 大爆炸			
 microwave 微波			
 cosmic microwave background radiation 宇宙微波背景辐射			
 Hubble constant 哈勃常数			
 poles 磁极			

Chemistry

Topics 7–12 · Acids, bases and salts, Organic chemistry, Experimental techniques and chemical analysis

 **chromatogram** 色谱图

 **crystallisation** 结晶

 **simple distillation** 蒸馏

 **carbonate** 碳酸盐

 **chloride** 氯化物

 **nitric acid** 硝酸

 **silver nitrate** 硝酸银

 **nitrate** 硝酸盐

 **barium nitrate** 硝酸钡

 **barium** 钡

 **bromide** 溴化物

 **iodide** 碘化物

 **sodium hydroxide** 氢氧化钠

 **sulfate** 硫酸盐

 **sulfite** 亚硫酸盐

 **ammonium** 铵

 **limewater** 石灰水

 **flame test** 焰色试验

effervescence 泡腾

amide linkage 酰胺键

ester linkage 酯键

Biology

Topics 20–21 · Human influences on ecosystems, Biotechnology and genetic modification

☒ **non-biodegradable** 不可降解

♻️ **plastics** 塑料

🔥 **methane** 甲烷

☀️ **greenhouse effect** 温室效应

🌡️ **climate change** 气候变化

♻️ **sustainable** 可持续

🛡️ **conserved** 保护

📏 **quotas** 配额

🚫 **closed seasons** 禁渔期

⚠️ **endangered** 濒危

🎯 **hunting** 狩猎

🚩 **introduced species** 外来物种

🏠 **captive breeding** 圈养繁殖

🔬 **artificial insemination** 人工授精

🧪 **in vitro fertilisation** 体外受精

📦 **seed banks** 种子库

💊 **drugs** 药物

🧬 **genetic variation** 变异

🧫 **biotechnology** 生物技术

 ethical 伦理			
 biofuel 生物燃料			
 pectinase 果胶酶			
 washing powders 洗衣粉			
 lactase 乳糖酶			
 lactose 乳糖			
 fermenter 发酵罐			
 penicillin 青霉素			
 mycoprotein 真菌蛋白			
 genetic modification 基因改造			
 protein 蛋白质			
 restriction enzymes 限制酶			
 sticky ends 黏性末端			
 ligase 连接酶			
 recombinant plasmid 重组质粒			
 express 表达			
 resistance 抗性			

Mathematics

Topics 4–9 · Geometry, Statistics

 pie chart 饼图			
 pictogram 象形图			
 stem-and-leaf diagram 茎叶图			

 frequency distribution 频数分布			
 scatter diagram 散点图			
 correlation 相关性			
 positive correlation 正相关			
 negative correlation 负相关			
 zero correlation 零相关			
 line of best fit 最佳拟合线			
 cumulative frequency 累积频数			
 percentile 百分位数			
 histogram 直方图			
 frequency density 频数密度			
 class width 组距			
 decagon 十边形			

Computer Science

Topics 3–6 · Hardware, Software, Automated and emerging technologies

fetch–execute cycle 取指 执行周期			
Cloud storage 云存储			
static 静态			
dynamic 动态			
firmware 固件			

bootloader 引导程序			
providing a user interface 用户界面			
managing peripherals 外围设备			
managing multitasking 多任务处理			
providing a platform 平台			
assembler 汇编器			
sensor types 传感器类型			
accelerometer 加速度计			
humidity 湿度			
proximity 接近			
knowledge base 知识库			
rule base 规则库			
inference engine 推理引擎			
Machine learning 机器学习			

Economics

Topics 4–6 · Government and the macroeconomy, International trade and globalisation

 depreciation 贬值			
 current account 经常账户			
 trade in goods 货物贸易			
 trade in services 服务贸易			

 primary income 初次收入			
 secondary income 二次收入			
 current account deficit 逆差			
 current account surplus 顺差			
 competitiveness 竞争力			
 interest rates 利率			
primary sector 第一产业			
secondary sector 第二产业			
tertiary sector 第三产业			
deindustrialisation 去工业化			

English

Topics 7-11 · Writing a review, Speaking skills, Vocabulary and text types

 breathtaking 惊人			
 politely 礼貌			
 revise 复习			
 interrupts 打断			
 spaced review 间隔复习			
blog 博客			