

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			
/ˈnjuːtrɒn stɑː/			
☒ nuclear reaction 核反应			
/ˈnjuːkliə rɪˈækʃn/			
🌌 galaxy 星系			
/ˈɡæləksi/			
☾ Milky Way 银河系			
/ˈmɪlki weɪ/			
📏 light-year 光年			
/laɪt jɪə/			
— diameter 直径			
/daɪˈæmɪtə/			
🌐 Universe 宇宙			
/ˈjuːnɪvɜːs/			
☁ interstellar cloud 星际云			
/ˌɪntəˈstɛlə klaʊd/			
✦ protostar 原恒星			
/ˈprɒtəʊstɑː/			
🛢 fuel 燃料			
/ˈfjuːəl/			
☁ nebula 星云			
/ˈnebjələ/			
☆ red supergiant 红超巨星			
/red ˈsuːpərdʒaɪənt/			
🌌 supernova 超新星			
/suːpəˈnɔːvə/			
◯ black hole 黑洞			
/blæk haʊl/			
← receding 退行			
/rɪˈsiːdɪŋ/			

→ redshift 红移			
/ˈredʃɪft/			
↗ expanding 膨胀			
/ekˈspændɪŋ/			
💣 Big Bang 大爆炸			
/bɪɡ bæŋ/			
📡 microwave 微波			
/ˈmaɪkrəweɪv/			
🌌 cosmic microwave background radiation 宇宙微波背景辐射			
/ˈkɒzmɪk ˈmaɪkrəweɪv ˈbækgraʊnd ˌreɪdɪˈeɪʃn/			
🔭 Hubble constant 哈勃常数			
/ˈhʌbl ˈkɒnstənt/			
🧲 poles 磁极			
/pəʊlz/			

Chemistry

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

📊 chromatogram 色谱图			
/kraʊˈmætəgræm/			
💎 crystallisation 结晶			
/ˈkrɪstəlɪˈzeɪʃn/			
💧 simple distillation 蒸馏			
/ˈsɪmpl dɪstɪˈleɪʃn/			
⚖️ carbonate 碳酸盐			
/ˈkɑːbəneɪt/			
🧂 chloride 氯化物			
/ˈklɔːraɪd/			
🧪 nitric acid 硝酸			
/ˈnaɪtrɪk ˈæsɪd/			

🧪 silver nitrate 硝酸银			
/ˈsɪlvə ˈnaɪtreɪt/			
⊗ nitrate 硝酸盐			
/ˈnaɪtreɪt/			
🧂 barium nitrate 硝酸钡			
/ˈbeəriəm ˈnaɪtreɪt/			
💎 barium 钡			
/ˈbeəriəm/			
🧂 bromide 溴化物			
/ˈbrəʊmaɪd/			
⊗ iodide 碘化物			
/ˈaɪədaɪd/			
🧂 sodium hydroxide 氢氧化钠			
/ˈsəʊdɪəm haɪˈdrɒksaɪd/			
⊗ sulfate 硫酸盐			
/ˈsʌlfet/			
🧂 sulfite 亚硫酸盐			
/ˈsʌlfaɪt/			
⊕ ammonium 铵			
/æˈmɒniəm/			
💧 limewater 石灰水			
/ˈlaɪmwɔːtə/			
🔥 flame test 焰色试验			
/fleɪm test/			
💧 effervescence 泡腾			
/ɪfəˈvesəns/			
🔗 amide linkage 酰胺键			
/əˈmaɪd ˈlɪŋkɪdʒ/			
🔗 ester linkage 酯键			
/ˈestə ˈlɪŋkɪdʒ/			

Biology

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

 non-biodegradable 不可降解			
/nɒn ˌbaɪəʊdɪˈgreɪdəbəl/			
 plastics 塑料			
/ˈplæstɪks/			
 methane 甲烷			
/ˈmiːθeɪn/			
 greenhouse effect 温室效应			
/ˈɡriːnhaʊs ɪˈfekt/			
 climate change 气候变化			
/ˈklaɪmət tʃeɪndʒ/			
 sustainable 可持续			
/səˈsteɪnəbəl/			
 conserved 保护			
/kənˈsɜːvd/			
 quotas 配额			
/ˈkwəʊtəz/			
 closed seasons 禁渔期			
/kloʊzd ˈsiːznz/			
 endangered 濒危			
/enˈdeɪndʒəd/			
 hunting 狩猎			
/ˈhʌntɪŋ/			
 introduced species 外来物种			
/ˌɪntrəˈdʒʊst ˈspiːsiːz/			
 captive breeding 圈养繁殖			
/ˈkæptɪv ˈbrɪdɪŋ/			
 artificial insemination 人工授精			
/ˌɑːtɪˈfɪʃl ɪnˌseɪnˈneɪʃn/			

 in vitro fertilisation 体外受精			
/ɪn ˈvɪtrəʊ ˌfɜːtɪlaɪˈzeɪʃn/			
 seed banks 种子库			
/siːd bæŋks/			
 drugs 药物			
/drʌɡz/			
 genetic variation 变异			
/dʒɪˈnetɪk ˌveəriˈeɪʃn/			
 biotechnology 生物技术			
/baɪəʊteɪk ˈnɒlədʒi/			
 ethical 伦理			
/ˈeθɪkəl/			
 biofuel 生物燃料			
/baɪəʊˈfjuːəl/			
 pectinase 果胶酶			
/ˈpektɪneɪs/			
 washing powders 洗衣粉			
/ˈwɒʃɪŋ ˈpaʊdəz/			
 lactase 乳糖酶			
/ˈlækteɪs/			
 lactose 乳糖			
/ˈlæktəʊs/			
 fermenter 发酵罐			
/ˈfɜːmenta/			
 penicillin 青霉素			
/ˌpenɪˈsɪlɪn/			
 mycoprotein 真菌蛋白			
/ˈmaɪkəprəʊtiːn/			
 genetic modification 基因改造			
/dʒɪˈnetɪk ˌmɒdɪfɪˈkeɪʃn/			
 protein 蛋白质			
/ˈprəʊtiːn/			

	restriction enzymes 限制酶			
	/rɪ'strɪkʃn 'enzaimz/			
	sticky ends 黏性末端			
	/'stɪki endz/			
	ligase 连接酶			
	/'liːgeɪs/			
	recombinant plasmid 重组质粒			
	/,rɪ:'kɒmbɪnənt 'plæzmid/			
	express 表达			
	/ek'spres/			
	resistance 抗性			
	/rɪ'zɪstəns/			

Mathematics

Topics 4–9 · Geometry, Statistics

	pie chart 饼图			
	/paɪ tʃɑːt/			
	pictogram 象形图			
	/'pɪktəgræm/			
	stem-and-leaf diagram 茎叶图			
	/stem ænd liːf 'daɪəgræm/			
	frequency distribution 频数分布			
	/'frɪkwənsɪ ,dɪstrɪ'bjuːʃn/			
	scatter diagram 散点图			
	/'skætsə 'daɪəgræm/			
	correlation 相关性			
	/'kɒrɪ'leɪʃn/			
	positive correlation 正相关			
	/'pɒzɪtɪv ,kɒrɪ'leɪʃn/			

	negative correlation 负相关			
	/'neɡətɪv ,kɒrɪ'leɪʃn/			
	zero correlation 零相关			
	/'ziərəʊ ,kɒrɪ'leɪʃn/			
	line of best fit 最佳拟合线			
	/laɪn ɒv best fit/			
	cumulative frequency 累积频数			
	/'kjuːmjələtɪv 'friːkwənsɪ/			
	percentile 百分位数			
	/pə'sentail/			
	histogram 直方图			
	/'hɪstəgræm/			
	frequency density 频数密度			
	/'friːkwənsɪ 'denstɪ/			
	class width 组距			
	/klæs wɪθ/			
	decagon 十边形			
	/dɪ'kæɡən/			

Computer Science

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

	fetch–execute cycle 取指执行周期			
	/fetʃ'eksɪkjʊt 'saɪkl/			
	Cloud storage 云存储			
	/klaʊd 'stɔːrɪdʒ/			
	static 静态			
	/'stætɪk/			
	dynamic 动态			
	/daɪ'næmɪk/			
	firmware 固件			
	/'fɜːmweə/			

 bootloader 引导程序			
/ˈbuːtləʊdə/			
 providing a user interface 用户界面			
/prəˈvaɪdɪŋ əˈjuːzə ˈɪntəfeɪs/			
 managing peripherals 外围设备			
/ˈmænɪdʒɪŋ pəˈtɪfərəlz/			
 managing multitasking 多任务处理			
/ˈmænɪdʒɪŋ ˈmʌltɪtæskɪŋ/			
 providing a platform 平台			
/prəˈvaɪdɪŋ əˈplætˌfɔːm/			
 assembler 汇编器			
/əˈsemblə/			
 sensor types 传感器类型			
/ˈsensə taɪps/			
 accelerometer 加速度计			
/əkˌseləˈrɒmɪtə/			
 humidity 湿度			
/hjuːˈmɪdɪti/			
 proximity 接近			
/prɒkˈsɪmɪti/			
 knowledge base 知识库			
/ˈnɒlɪdʒ beɪs/			
 rule base 规则库			
/ruːl beɪs/			
 inference engine 推理引擎			
/ɪnfərəns ˈendʒɪn/			
 Machine learning 机器学习			
/məˈʃiːn ˈlɜːnɪŋ/			

Economics

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

 depreciation 贬值			
/dɪˌprɪʃɪˈeɪʃn/			
 current account 经常账户			
/ˈkʌrənt əˈkaʊnt/			
 trade in goods 货物贸易			
/treɪd ɪn ɡɒdz/			
 trade in services 服务贸易			
/treɪd ɪn ˈsɜːvɪsɪz/			
 primary income 初次收入			
/ˈpraɪməri ˈɪŋkəm/			
 secondary income 二次收入			
/ˈsekəndəri ˈɪŋkəm/			
 current account deficit 逆差			
/ˈkʌrənt əˈkaʊnt ˈdefɪsɪt/			
 current account surplus 顺差			
/ˈkʌrənt əˈkaʊnt ˈsɜːpləs/			
 competitiveness 竞争力			
/kəmˈpetɪtɪvnes/			
 interest rates 利率			
/ˈɪntrest reɪts/			
 primary sector 第一产业			
/ˈpraɪməri ˈsektə/			
 secondary sector 第二产业			
/ˈsekəndəri ˈsektə/			
 tertiary sector 第三产业			
/ˈtɜːʃəri ˈsektə/			

🏭 **deindustrialisation** 去工业化
/ˌdeɪndəˌstriələɪˈzeɪʃn/

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

🌟 **brehtaking** 惊人
/'breɪtkeɪɪŋ/

😊 **politely** 礼貌
/pəˈlɪtli/

📖 **revise** 复习
/rɪˈvaɪz/

👋 **interrupts** 打断
/ɪntəˈrʌpts/

🕒 **spaced review** 间隔复习
/speɪst rɪˈvjuː/

📝 **blog** 博客
/blɒɡ/