
Morning Reading

Grade 10 · Week 12

Read each word aloud, then copy the English word three times.

Reading

Read the passage aloud twice.

In a modern car factory, **robots** do the heavy work. A robot has a **mechanical** arm, sensors, and a **microprocessor** that follows **programmable instructions**. Robots weld the same joint perfectly, thousands of times, without getting tired. At home, smaller machines help too: a robot **vacuum cleaner** finds its own way around your floor. These are **domestic appliances** with tiny computers inside.

Electric circuits this week: in a **series** circuit, the same current flows through every part, and one broken bulb switches off the whole string of lights. In a **parallel** circuit, each bulb has its own path, so the others stay on. A **fuse** is a thin wire that melts if the current gets dangerously large, protecting the circuit.

When prices in a country keep rising year after year, we call it **inflation**. A government can respond with **fiscal policy**: changing **taxation** and **government spending** through its yearly **budget**.

Talk about it :

1. Which jobs in your city are now done by robots? Which jobs are safe, and why?
2. Your holiday lights use a series circuit. Why is that a bad design?

Physics

Topics 2-4 · Thermal physics, Electricity and magnetism

 **inversely proportional**

/ɪn'vɜːsli prə'pɔːʃənəl/

 **cross-sectional area**

/krɒs 'sekʃənəl 'eəriə/

 **resistor**

/rɪ'zɪstə/

 **variable resistor**

/'veəriəbl rɪ'zɪstə/

 **light-dependent resistor**

/laɪt dɪ'pendənt rɪ'zɪstə/

 **light-emitting diode**

/laɪt ɪ'mɪtɪŋ 'daɪəd/

 **diode**

/'daɪəd/

 **filament lamp**

/'fɪləmənt læmp/

 **kilowatt-hour**

/'kɪləwɒt 'aʊə/

 **appliance**

/ə'plaɪəns/

 **heater**

/'hiːtə/

 **cell**

/sel/

 **battery**

/'bætəri/

 **switch**

/swɪtʃ/

 **trip switch**

/trɪp swɪtʃ/

 fuse /fju:z/			
 fuse rating /fju:z 'reɪtɪŋ/			
 thermistor /'θɜ:mɪstə/			
 relay /'ri:leɪ/			
 motor /'məʊtə/			
 d.c. motor /,di: 'si: 'məʊtə/			
 bell /bel/			
 transformer /træns'fɔ:mə/			

Chemistry

Topics 4–9 · Electrochemistry, The Periodic Table, Metals

 variable /'veəriəbl/			
 unreactive /ʌnrɪ'æktɪv/			
 monatomic /,mɒnə'tɒmɪk/			
 thermal conductivity /'θɜ:ml kɒndəktɪvɪti/			
 brittle /'brɪtl/			
 steam /sti:m/			
 oxide layer /'ɒksaɪd 'leɪə/			

 **calcium oxide**

/ˈkælsiəm ˈɒksaɪd/

 **calcium**

/ˈkælsiəm/

 **alloy**

/ˈæləɪ/

 **brass**

/bræs/

 **zinc**

/zɪŋk/

 **stainless steel**

/ˈsteɪnləs stiːl/

 **chromium**

/ˈkrəʊmiəm/

 **nickel**

/ˈnɪkl/

 **carbon**

/ˈkɑːbən/

 **carbon monoxide**

/ˈkɑːbən mʌˈnɒksaɪd/

 **reactivity series**

/rɪəˈktɪvɪti ˈsiəriːz/

 **hydrogen**

/ˈhaɪdrədʒn/

Biology

Topic 14 · Coordination and response

 **gland**

/glænd/

 **synapse**

/ˈsɪnæps/

 **vesicles**

/ˈvesɪklz/

✧ **neurotransmitter**
/'nju: rə'trænsmitə/

— **synaptic gap**
/sɪ'næptɪk ɡæp/

🔑 **receptor proteins**
/rɪ'septə 'prəʊti:nz/

👁 **sense organs**
/sens 'ɔ:ɡənz/

👁 **cornea**
/'kɔ:nɪə/

↪ **refracts**
/rɪ'fræktz/

🌀 **iris**
/'aɪrɪs/

○ **pupil**
/'pju:pl/

👁 **lens**
/lenz/

[] **retina**
/'retɪnə/

👁 **optic nerve**
/'ɒptɪk nɜ:v/

👁 **blind spot**
/blaɪnd spɒt/

↔ **antagonistic**
/æn'tæɡənɪstɪk/

○ **circular muscles**
/'sɜ:kjələ 'mʌslz/

☀ **radial muscles**
/'reɪdiəl 'mʌslz/

👁 **accommodation**
/ə,kɒmə'deɪʃn/

🌀 **ciliary muscles**
/'sɪliəri 'mʌslz/

	suspensory ligaments <i>/sə'spensəri 'ligəmənts/</i>			
	rods <i>/rɒdz/</i>			
	vision <i>/'vɪʒn/</i>			
	cones <i>/kəʊnz/</i>			
	fovea <i>/'fəʊviə/</i>			
	target organs <i>/'tɑːɡɪt 'ɔːɡənz/</i>			
	endocrine glands <i>/'endəʊkraɪn glændz/</i>			
	adrenal glands <i>/ə'driːnl glændz/</i>			
	adrenaline <i>/ə'drenəlɪn/</i>			
	insulin <i>/'ɪnsjuːlɪn/</i>			
	glucagon <i>/'gluːkæɡən/</i>			
	testes <i>/'testiːz/</i>			
	testosterone <i>/te'stɒstərəʊn/</i>			
	ovaries <i>/'əʊvəriːz/</i>			
	oestrogen <i>/'iːstrədʒɪn/</i>			

Mathematics

Topic 4 · Geometry

 arc /ɑ:k/			
 sector /'sektə/			
 segment /'segmənt/			
 semicircle /'semɪsɜ:kəl/			
 cyclic quadrilateral /'saɪklɪk ˌkwɒdrɪ'lætərəl/			
 alternate segment theorem /ɔ:l'tɜ:nət 'segmənt 'θiərəm/			
 similar /'sɪmlə/			
 scale factor /skeɪl 'fæktə/			
= congruent /'kɒŋgru:ənt/			
 bearing /'beərɪŋ/			
 clockwise /'klɒkwaɪz/			
 construct /'kɒnstrʌkt/			
 compasses /'kʌmpəsɪz/			
 net /net/			
 scale drawing /skeɪl 'drɔ:ɪŋ/			



solids

/ˈsɒlɪdz/

Computer Science

Topics 6–7 · Automated and emerging technologies



domestic appliances

/dəˈmestɪk əˈplaɪənsɪz/



vacuum cleaner

/ˈvækjuːm ˈkliːnə/



**lack of independent
decision-making**

/læk ʌv ˌɪndɪˈpendənt dɪˈsɪʒn ˈmeɪkɪŋ/



Artificial intelligence

/ˌɑːtɪˈfɪʃl ɪnˈtelɪdʒəns/



simulation

/ˌsɪmjʊˈleɪʃn/



rules

/ruːlz/



reason

/ˈriːzn/



draw conclusions

/drɔː kənˈkluːʒnz/



approximate

/əˈprɒksɪmət/



definite

/ˈdefɪnət/



learn

/lɜːn/



adapt

/əˈdæpt/



expert systems

/ˈekspɜːt ˈsɪstəmz/

🗨️ **natural language processing**

/ˈnætʃərəl ˈlæŋɡwɪdʒ ˈprəʊsesɪŋ/

🚗 **self-driving cars**

/self ˈdraɪvɪŋ kɑːz/

🔗 **narrow AI**

/ˈnærəʊ ˌeɪ ˈaɪ/

🔗 **general AI**

/ˈdʒenərəl ˌeɪ ˈaɪ/

🔗 **strong AI**

/strɒŋ ˌeɪ ˈaɪ/

↺ **program development life cycle**

/ˈprəʊɡræm dɪˈveləpmənt laɪf ˈsaɪkl/

🔍 **analysis**

/əˈnæləsɪs/

Economics

Topic 4 · Government and the macroeconomy

⚔️ **conflict**

/ˈkɒnflɪkt/

🏛️ **Fiscal policy**

/ˈfɪskl ˈpɒləsi/

💰 **government spending**

/ˈɡʌvənmənt ˈspendɪŋ/

💵 **taxation**

/tækˈseɪʃn/

📅 **budget**

/ˈbʌdʒɪt/

↘️ **budget deficit**

/ˈbʌdʒɪt ˈdefɪsɪt/

↗️ **budget surplus**

/ˈbʌdʒɪt ˈsɜːpləs/

 direct tax /daɪ'rekt tæks/			
 progressive tax /prə'gresɪv tæks/			
 regressive tax /rɪ'gresɪv tæks/			
= proportional tax /prə'pɔːʃənəl tæks/			
 Monetary policy /'mʌnɪtəri 'pɒləsi/			
 money supply /'mʌni sə'plaɪ/			
 invest /ɪn'vest/			

English

Topics 7–8 · Writing a review, Writing an essay

 evaluate /ɪ'veljueɪt/			
 essay /'eseɪ/			
 discursive /dɪ'skɜːsɪv/			
 argumentative /ˌɑːɡjuː'mentətɪv/			
≡ body /'bɒdi/			