
Morning Reading

Grade 10 · Week 13

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

Reading

Read the passage aloud twice.

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 :

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

Topic 4 · Electricity and magnetism

 **series**

/ˈsiəri:z/

 **parallel**

/ˈpærəlel/

 **junction**

/ˈdʒʌŋkʃn/

 **hazard**

/ˈhæzəd/

 **insulation**

/ˌɪnsjuːˈleɪʃn/

 **overheating**

/ˌəʊvəˈhi:tɪŋ/

 **damp**

/dæmp/

 **overloading**

/ˌəʊvəˈləʊdɪŋ/

 **socket**

/ˈsɒkɪt/

 **live wire**

/laɪv ˈwaɪə/

 **neutral wire**

/ˈnju:trəl ˈwaɪə/

 **earth wire**

/ɜ:θ ˈwaɪə/

 **casing**

/ˈkeɪsɪŋ/

 **earthed**

/ɜ:θt/

 **double-insulated**

/ˈdʌbl ˈɪnsju:lertɪd/

 **solenoid**

/ˈsəʊlənɔɪd/

 **coil**

/kɔɪl/

 **primary coil**

/ˈpraɪməri kɔɪl/

 **secondary coil**

/ˈsekəndəri kɔɪl/

 **loudspeaker**

/ˈlaʊdspɪ:kə/

 **electromagnetic induction**

/ɪˌlektərəmægˈnetɪk ɪnˈdʌkʃn/

 **a.c. generator**

/ˌeɪ ˈsiː ˈdʒenəreɪtə/

Chemistry

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

 **lead**

/liːd/

 **aluminium**

/ˌæljʊˈmɪniəm/

 **magnesium**

/mægˈniːziəm/

 **rusting**

/ˈrʌstɪŋ/

 **rust**

/rʌst/

 **barrier methods**

/ˈbæriə ˈmeθədz/

 **galvanising**

/ˈgælvənaɪzɪŋ/

 **sacrificial protection**

/ˌsækrɪˈfɪʃl prəˈtekʃn/

 ore /ɔː/			
 hematite /'hemətait/			
 blast furnace /blæst 'fɜːnɪs/			
 limestone /'laɪnstəʊn/			
 slag /slæg/			
 bauxite /'bɔːksaɪt/			
 cryolite /'kraɪələɪt/			
 distilled water /dɪ'stɪld 'wɔːtə/			
 impurities /ɪm'pjʊərɪtiz/			
 sewage /'suːɪdʒ/			
 microbes /'maɪkrəʊbz/			
 phosphates /'fɒsfets/			
 aquatic life /ə'kwætɪk laɪf/			
 minerals /'mɪnərəlz/			

Biology

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



duration

/dʒʊə'reɪʃn/



homeostasis

/ˈhəʊmi:ə'stə:sɪz/



negative feedback

/'negətɪv 'fɪ:dbæk/



set point

/set pɔɪnt/



diabetes

/ˌdaɪə'bi:tɪz/



sweat glands

/swet glændz/



sweating

/'swetɪŋ/



hair erector muscles

/heə ɪ'rektə 'mɜːslz/



fatty tissue

/'fæti 'tɪʃuː/



insulation

/ˌɪnsjuː'leɪʃn/



arterioles

/ɑː'tɪəriəʊlz/



vasodilation

/ˌvæsədi'leɪʃn/



shiver

/'ʃɪvə/



vasoconstriction

/ˌvæsəkən'strɪkʃn/



tropism

/'trəʊpɪzəm/

↓	gravitropism /'grævitrəʊpɪzəm/			
↓	gravity /'grævɪti/			
☀	phototropism /'fəʊtəʊ'trəʊpɪzəm/			
🌱	auxin /'ɔːksɪn/			
🌱	shoot /ʃuːt/			
↕	elongate /'iːlɒŋgeɪt/			
💊	drug /drʌg/			
💊	antibiotics /ˌæntɪbaɪ'ɒtɪks/			
🦠	infections /ɪn'fekʃnz/			
🛡	resistant /rɪ'zɪstənt/			
📄	asexual reproduction /eɪ'sekʃuəl rɪprə'dʌkʃn/			
👤	parent /'peərənt/			
😊	offspring /'ɒfsprɪŋ/			
♀	sexual reproduction /'seksjuəl rɪprə'dʌkʃn/			
↗	fusion /'fjuːʒn/			
⊕	zygote /'zaɪɡəʊt/			
↗	fertilisation /'fɜːtɪlaɪ'zeɪʃn/			

↕ **variation**
/ˌveəri'eɪʃn/

○ **haploid**
/'hæplɔɪd/

✚ **chromosomes**
/'krəʊməsəʊmz/

Mathematics

Topics 4–5 · Geometry, Mensuration

◻ **cube**
/kjuːb/

◻ **cuboid**
/'kjuːbɔɪd/

△ **prism**
/'prɪzəm/

◻ **cylinder**
/'sɪlɪndə/

△ **pyramid**
/'pɪrəˌmɪd/

△ **cone**
/kəʊn/

○ **sphere**
/sfɪə/

○ **hemisphere**
/'hemɪsfɪə/

△ **frustum**
/'frʌstəm/

◻ **face**
/feɪs/

— **edge**
/edʒ/

≡ **surface**
/'sɜːfɪs/



metric

/ˈmetrɪk/



capacity

/kəˈpæsɪti/



perimeter

/pəˈrɪmɪtə/



height

/haɪt/

Computer Science

Topic 7



design

/dɪˈzaɪn/



coding

/ˈkɒdɪŋ/



testing

/ˈtestɪŋ/



abstraction

/əbˈstrækʃn/



decomposition

/ˌdiːkɒmpəˈzɪʃn/



sub-systems

/sʌb ˈsɪstəmz/



structure diagram

/ˈstrʌktʃə ˈdaɪəgræm/



iterative testing

/ɪtəreɪv ˈtestɪŋ/



test data

/test ˈdeɪtə/



flowchart

/ˈfləʊtʃɑːt/



pseudocode

/ˈsuːdəʊkəʊd/

 **algorithm**

/ˈælgərɪθəm/

 **input**

/ˈɪnpʊt/

 **processing**

/ˈprəʊsesɪŋ/

 **output**

/ˈaʊtpʊt/

 **validation**

/ˌvælɪˈdeɪʃn/

 **range check**

/reɪndʒ tʃek/

 **length check**

/leŋθ tʃek/

 **type check**

/taɪp tʃek/

 **presence check**

/ˈprezəns tʃek/

Economics

Topic 4 · Government and the macroeconomy

 **Supply-side policy**

/səˈplaɪ saɪd ˈpɒlɪsi/

 **privatisation**

/ˌpraɪvətəɪˈzeɪʃn/

 **deregulation**

/diːˌregjʊˈleɪʃn/

 **gross domestic product**

/grəʊs dəˈmestɪk ˈprɒdʌkt/

 **Real**

/rɪəl/

 **business cycle**

/ˈbɪznəs ˈsaɪkl/

 boom /bu:m/			
 recession /rɪ'seʃn/			
 slump /slʌmp/			
 recovery /rɪ'kʌvəri/			
 living standards /'lɪvɪŋ 'stændədz/			
 claimant count /'kleɪmənt kaʊnt/			
 unemployment benefit /ʌnem'plɔɪmənt 'benɪfɪt/			

English

Topic 9 · Listening skills

 recording /rɪ'kɔ:dɪŋ/			
 specific /spə'sɪfɪk/			
 directions /daɪ'rekʃnz/			
 feelings /'fi:lɪŋz/			
 connect /kə'nekt/			
 suggests /sə'dʒests/			