
Morning Reading

Grade 10 · Week 8

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

Reading

Read the passage aloud twice.

Invisible waves are all around you right now. **Radio waves** carry music to cars. **Microwaves** heat food and carry phone signals. **Ultraviolet** light from the Sun can burn your skin. Doctors use **X-rays** to see bones, and **gamma rays** to treat cancer. All of these can travel through empty space, a **vacuum**. Sound cannot: it always needs a **medium** such as air or water. Shout at a big wall and you hear an **echo**, your own sound wave reflected back.

Before money, people used **barter**: they traded fish for rice or shoes for tea. It was slow, because both sides had to want what the other had. **Money** solved this. It is a **medium of exchange** that everyone accepts, and a **store of value** you can keep for later.

Computers only understand **machine code**, patterns of ones and zeros. People write in a **high-level language** like Python, and a **translator** turns it into machine code.

Talk about it :

1. Name three invisible waves you used today and what they did for you.
2. Imagine one week without money. How would you get your lunch?

Physics

Topic 3 · Waves

^ **crest**

/krest/

∨ **trough**

/trof/

↑ **amplitude**

/'æmplitju:d/

↔ **propagation**

/'prɒpə'geɪʃn/

 ripple tank <i>/ˈrɪpl tæŋk/</i>			
 reflection <i>/rɪˈflekʃn/</i>			
 angle of reflection <i>/ˈæŋɡl ɒv rɪˈflekʃn/</i>			
 angle of refraction <i>/ˈæŋɡl ɒv rɪˈfrækʃn/</i>			
 total internal reflection <i>/ˈtəʊtl mˈtɜːnl rɪˈflekʃn/</i>			
 critical angle <i>/ˈkrɪtɪkl ˈæŋɡl/</i>			
 refraction <i>/rɪˈfrækʃn/</i>			
 angle of incidence <i>/ˈæŋɡl ɒv ˈɪnsɪdəns/</i>			
 diffraction <i>/dɪˈfrækʃn/</i>			
 light <i>/laɪt/</i>			
 normal <i>/ˈnɔːml/</i>			
 plane mirror <i>/pleɪn ˈmɪrə/</i>			
 refractive index <i>/rɪˈfræktɪv ˈɪndeks/</i>			
 optical fibre <i>/ˈɒptɪkl ˈfaɪbə/</i>			
 converging lens <i>/kənˈvɜːdʒɪŋ lenz/</i>			
 diverging lens <i>/daɪˈvɜːdʒɪŋ lenz/</i>			
 principal focus <i>/ˈprɪnsɪpl ˈfəʊkəs/</i>			



focal length

/ˈfəʊkl lɛŋθ/



real image

/riəl ˈɪmɪdʒ/

Chemistry

Topics 5–6 · Chemical energetics, Chemical reactions



neutralisation

/ˌnjuːtrəlaɪˈzeɪʃn/



enthalpy change

/enˈθælpɪ tʃeɪndʒ/



colliding

/kəˈlaɪdɪŋ/



physical change

/ˈfɪzɪkl tʃeɪndʒ/



chemical change

/ˈkemɪkl tʃeɪndʒ/



precipitate

/prɪˈsɪpɪteɪt/



rate of reaction

/reɪt ɒv rɪˈækʃn/



reversible reaction

/rɪˈvɜːsɪbl rɪˈækʃn/



forward reaction

/ˈfɔːwəd rɪˈækʃn/



reverse reaction

/rɪˈvɜːs rɪˈækʃn/



redox reaction

/rɪˈdɒks rɪˈækʃn/



collision theory

/kəˈlɪʒn ˈθɪəri/



surface area

/ˈsɜːfɪs ˈeəriə/

 catalyst /'kætəlist/			
 enzymes /'enzaimz/			
 syringe /sɪ'rɪndʒ/			
 hydrated /haɪ'dreɪtɪd/			
 anhydrous /æn'haidrəs/			
 closed system /kləʊzd 'sɪstəm/			
 position of equilibrium /pə'zɪʃn ɒv ,ɪ:kwi'libriəm/			
 equilibrium /ɪ:kwi'libriəm/			
 endothermic /endəθ'θɜ:mɪk/			

Biology

Topics 7–9 · Human nutrition, Transport in plants, Transport in animals

 pepsin /'pepsɪn/			
 trypsin /'trɪpsɪn/			
 alkaline /'ælkəlaɪn/			
 neutralises /'nju:trəlaɪzɪz/			
 villi /'vɪlaɪ/			
 microvilli /'maɪkrəʊvɪlaɪ/			

⦿	capillaries /'kæpɪlərɪz/			
💧	lacteal /'læktɪəl/			
▤	support /sə'pɔ:t/			
🩺	vessels /'veslz/			
▦	lignin /'lɪgnɪn/			
📖	cortex /'kɔ:teks/			
👤	stain /steɪn/			
💧	transpiration /trænspe'reɪʃn/			
☁	water vapour /'wɔ:tə 'veɪpə/			
☁	evaporates /ɪ'væpəreɪts/			
⇌	diffuses /dɪ'fju:zɪz/			
⇌	wind speed /wɪnd spi:d/			
💧	humidity /hju:'mɪdɪti/			
↑	transpiration pull /trænspe'reɪʃn pɒl/			
🔗	forces of attraction /'fɔ:sɪz ɒv ə'trækʃn/			
▤	column /'kɒləm/			
🍃	wilts /wɪltz/			

↕ **translocation**

/trænsləʊ'keɪʃn/

↑ **sources**

/'sɔːsɪz/

↓ **sinks**

/sɪŋks/

♥ **circulatory system**

/,sɜːkjə'leɪtəri 'sɪstəm/

♥ **heart**

/hɑːt/

⚡ **pump**

/pʌmp/

⌚ **valves**

/vælvz/

○ **single circulation**

/'sɪŋɡl ,sɜːkjə'leɪʃn/

∞ **double circulation**

/'dʌbl ,sɜːkjə'leɪʃn/

↓ **pressure**

/'preʃə/

⟨⟩ **septum**

/'septəm/

⌚ **atrium**

/'eɪtriəm/

♥ **ventricle**

/'ventrɪkl/

Mathematics

Topic 2 · Algebra and graphs

[:] **symmetry**

/'sɪmətri/

⊕ **intercept**

/,ɪntə'sept/

 parabola <i>/pə'reɪbələ/</i>			
 turning point <i>/'tɜːnɪŋ pɔɪnt/</i>			
 asymptote <i>/'æsimptəʊt/</i>			
 differentiation <i>/'dɪfə'renʃi'eɪʃn/</i>			
 tangent <i>/'tændʒənt/</i>			
 derivative <i>/dɪ'rɪvətɪv/</i>			
 stationary point <i>/'steɪʃənəri pɔɪnt/</i>			
 maximum <i>/'mæksɪmə/</i>			
 minimum <i>/'mɪnɪmə/</i>			
 function <i>/'fʌŋkʃn/</i>			
 domain <i>/də'meɪn/</i>			
 range <i>/reɪndʒ/</i>			
 inverse function <i>/ɪn'vɜːs 'fʌŋkʃn/</i>			
 composite function <i>/'kɒmpəzɪt 'fʌŋkʃn/</i>			

Computer Science

Topics 4–5 · Software, The internet and its uses

<> **programming language**

/ˈprəʊɡræmɪŋ ˈlæŋɡwɪdʒ/

<> **high-level language**

/haɪ ˈleɪl ˈlæŋɡwɪdʒ/

10 **low-level language**

/ləʊ ˈleɪl ˈlæŋɡwɪdʒ/

🖨 **machine code**

/məˈʃiːn kəʊd/

<> **assembly language**

/əˈsembli ˈlæŋɡwɪdʒ/

📍 **specific**

/spəˈsɪfɪk/

🔗 **translator**

/trænˈsleɪtə/

▶ **interpreter**

/ɪnˈtɜːprɪtə/

<> **integrated development environment**

/ˈɪntɪɡreɪtɪd dɪˈveləpmənt enˈvaɪrənmənt/

📄 **code editor**

/kəʊd ˈedɪtə/

▶ **run time environment**

/rʌn taɪm enˈvaɪrənmənt/

🔍 **error diagnostics**

/ˈerə ˌdaɪəɡˈnɒstɪks/

✱ **auto-completion**

/ˈɔːtəʊ kəmˈpliːʃn/

🔗 **auto-correction**

/ˈɔːtəʊ kəˈrekʃn/

≡ **prettyprinting**

/ˈpreɪtɪprɪntɪŋ/

 internet /'ɪntənət/			
 infrastructure /'ɪnfɹəstrʌktʃə/			
 world wide web /wɜ:lɪd waɪd web/			
 websites /'websaɪts/			
 uniform resource locator /'ju:nɪfɔ:m rɪ'zɔ:s ləʊ'keɪtə/			

Economics

Topics 2–3 · The allocation of resources, Microeconomic decision-makers

 minimum price /'mɪnɪməm praɪs/			
 indirect tax /'ɪndaɪ'rekt tæks/			
 regulation /,regjʊ'leɪʃn/			
 direct provision /daɪ'rekt prə'vɪʒn/			
 barter /'bɑ:tə/			
 money /'mʌni/			
 medium of exchange /'mi:diəm ɒv ɛks'tʃeɪndʒ/			
 store of value /stɔ: ɒv 'vælju:/			
 unit of account /'ju:nɪt ɒv ə'kaʊnt/			

 **means of deferred payment**

/mi:nz ov di'f3:d 'peimənt/

 **durable**

/'djʊərəbl/

 **portable**

/'pɔ:təbl/

 **divisible**

/di'vɪzəbl/

 **central bank**

/'sentrəl bæŋk/

English

Topics 3-4 · Writing an informal email, Writing a formal letter or email

 **example**

/eg'zæmpl/

 **detail**

/'di:teɪl/

 **semi-formal**

/'semi 'fɔ:ml/

 **head teacher**

/hed 'ti:tʃə/

 **manager**

/'mænɪdʒə/

 **event organiser**

/ɪ'vent 'ɔ:gənaɪzə/

 **format**

/'fɔ:mæt/