

Morning Reading

Grade 11 · AS · Week 13

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

Reading

Read the passage aloud twice.

Your school runs on a **relational database**, even if you never see it. One **table** stores students, another stores classes. Each row is a **record**; each column, such as name or birthday, is a **field**. Every student has a unique **primary key**, and the class table points to it with a **foreign key**. That link is what makes the database relational: information is stored once and connected, never copied. When the office prints your timetable, a query joins the tables in milliseconds.

Physics this week showed light behaving strangely. Shine one small light through two narrow slits and the screen shows dark and bright stripes. The waves from the two slits show **interference**: where crest meets crest the light is bright; where crest meets trough, darkness. This **double-slit** experiment convinced physicists that light travels as a wave.

Economies swing through the **business cycle**. In a **boom**, jobs are easy to find and firms invest; then demand cools and growth slows, until a **recovery** starts the cycle again.

Talk about it :

1. Why store a student’s name once, in one table, instead of in every class list?
2. Two waves meet and produce darkness. Explain how this is possible.

Physics

Topic 9 · Electricity

coulomb /ˈkuːlɒm/			
number density /ˈnʌmbə ˈdensɪti/			
drift velocity /drɪft vəˈlɒsɪti/			

potential difference /pəˈtɛnʃl ˈdɪfrəns/			
volt /vɔlt/			
electromotive force /ɪˌlektɹəʊˈməʊtɪv fɔːs/			
resistance /rɪˈzɪstəns/			
ohm /əʊm/			
Ohm’s law /əʊmz lɔː/			
filament lamp /ˈfɪləmənt læmp/			
diode /ˈdaɪəʊd/			
resistivity /ˌrɪːzɪˈstɪvəti/			
insulator /ˈɪnsjuːleɪtə/			
lattice vibration /ˈlætɪs vaɪˈbreɪʃn/			
scatters /ˈskætəz/			
light-dependent resistor /laɪt dɪˈpendənt rɪˈzɪstə/			
light intensity /laɪt ɪnˈtensɪti/			
thermistor /ˈθɜːmɪstə/			

 root hair cell			
<i>/rut heə sel/</i>			
 apoplast pathway			
<i>/'æpəplæst 'pæθwei/</i>			
 symplast pathway			
<i>/'simplæst 'pæθwei/</i>			
 endodermis			
<i>/'endəʊdəmis/</i>			
 Casparian strip			
<i>/kæ'spiəriən stri:p/</i>			
 suberin			
<i>/'sʌbərin/</i>			
 transpiration			
<i>/trænspe'reɪʃn/</i>			
 evaporation			
<i>/ɪ,væpə'reɪʃn/</i>			
 water vapour			
<i>/'wɔ:tə 'veɪpə/</i>			
 diffuse			
<i>/dɪ'fju:z/</i>			
 stomata			
<i>/'stəʊmətə/</i>			
 atmosphere			
<i>/'ætməsfɪə/</i>			

Mathematics			
<i>Topic 4 · Mechanics</i>			
 displacement			
<i>/dɪ'spleɪsmənt/</i>			
 velocity			
<i>/və'lɒsɪti/</i>			
 acceleration			
<i>/ək,sələ'reɪʃn/</i>			
 velocity-time graph			
<i>/və'lɒsɪti taɪm græf/</i>			
 constant acceleration			
<i>/'kɒnstənt ək,sələ'reɪʃn/</i>			
 momentum			
<i>/məʊ'mentəm/</i>			
 conservation of momentum			
<i>/,kɒnsə'veɪʃn ɒv məʊ'mentəm/</i>			
 Newton's laws of motion			
<i>/'nju:tɪnz lɔ:z ɒv 'məʊʃn/</i>			
 mass			
<i>/mæs/</i>			
 weight			
<i>/weɪt/</i>			
Further Mathematics			
<i>Topic 3 · Further Mechanics</i>			
 bounding parabola			
<i>/'baʊndɪŋ pə'ræbələ/</i>			
 lamina			
<i>/'læmɪnə/</i>			

 coplanar forces			
<i>/ˈkəʊˈpleɪnə ˈfɔːsɪz/</i>			
 conical pendulum			
<i>/ˈkɒnɪkl ˈpendjələm/</i>			
 normal contact force			
<i>/ˈnɔːml ˈkɒntækt fɔːs/</i>			

Computer Science

Topics 4–10 · Processor Fundamentals, Algorithm Design and Problem-solving, Data Types and Structures

 pseudocode			
<i>/ˈsuːdəʊkəʊd/</i>			
 sequence			
<i>/ˈsiːkwəns/</i>			
 selection			
<i>/sɪˈleɪʃn/</i>			
 iteration			
<i>/ˌɪtəˈreɪʃn/</i>			
 loop			
<i>/luːp/</i>			
= assignment			
<i>/əˈsaɪnmənt/</i>			
 concatenation			
<i>/kənˌkætəˈneɪʃn/</i>			
 structured English			
<i>/ˈstrʌktʃəd ˈɪŋɡlɪʃ/</i>			
 flowchart			
<i>/ˈfləʊtʃɑːt/</i>			
 stepwise refinement			
<i>/ˈstepwaɪz rɪˈfaɪnmənt/</i>			
() logic statement			
<i>/ˈlɒdʒɪk ˈsteɪtmənt/</i>			

 precedence			
<i>/ˈpreɪsɪdəns/</i>			
 De Morgan's law			
<i>/də ˈmɔːgənz lɔː/</i>			
 procedure			
<i>/prəˈsiːdʒə/</i>			
[] array			
<i>/əˈreɪ/</i>			
# index			
<i>/ˈɪndeks/</i>			
• element			
<i>/ˈelɪmənt/</i>			
[] bounds			
<i>/bəʊndz/</i>			
 dimension			
<i>/daɪˈmenʃn/</i>			
→ linear search			
<i>/ˈlɪniə sɜːtʃ/</i>			
 file			
<i>/faɪl/</i>			
 text file			
<i>/tekst faɪl/</i>			
 end of file			
<i>/end ɒv faɪl/</i>			
 Abstract Data Type			
<i>/ˈæbstrækt ˈdeɪtə taɪp/</i>			
 stack			
<i>/stæk/</i>			
↑ LIFO			
<i>/ˈlaɪfəʊ/</i>			
↓ push			
<i>/pʊʃ/</i>			

↑ pop

/pɒp/

Economics

Topic 4 · The macroeconomy

↺ business cycle

/'bɪznəs 'saɪkl/

↗ boom

/buːm/

↘ recession

/rɪ'seɪʃn/

↓ slump

/slʌmp/

↗ recovery

/rɪ'kʌvəri/

📋 claimant count

/'kleɪmənt kaʊnt/

📋 labour force survey

/'leɪbə fɔːs 'sɜːveɪ/

👥 labour force

/'leɪbə fɔːs/

↔ frictional unemployment

/'frɪkʃənəl ʌnem'plɔɪmənt/

🏢 structural unemployment

/'strʌktʃərəl ʌnem'plɔɪmənt/

↺ cyclical unemployment

/'saɪklɪkl ʌnem'plɔɪmənt/

🌞 seasonal unemployment

/'siːzənəl ʌnem'plɔɪmənt/

↗ inflation

/ɪn'fleɪʃn/

📋 purchasing power

/'pɜːtʃɪsɪŋ 'paʊə/

↘ deflation

/di:'fleɪʃn/

↘ disinflation

/,dɪsɪn'fleɪʃn/