

# **GEMS Winchester School Dubai**



## **Year 8 Progress Test Revision**



## English

### Topic / Skill:

Reading:

Narrative

Non-Narrative

### Notes / revision links

- Retrieval  
(extracting key information from the text read)
- Inference  
(drawing conclusion on the basis of text read)
- Authors technique  
(knowing the purpose, audience and context of writing)
- Complex Inference  
(knowing how choice of words, leads to a particular meaning)

NOTE: Pls choose Reading Option Booklet Year 8 from the first link below. Challenge your child to answer Level (4-6).

<http://www.satspapers.org/KS3%20test%20papers.htm>

From the below link practice test (5-8) Reading Comprehension Passages.

<https://www.majortests.com/sat/reading-comprehension.php>

### Practice Questions

1. The men '...fanned out, in case it rushed out of the cave and escaped them.'  
Which of these describes their movement?

Stepped back

Closed in

Moved apart

Turned around

2. Which of the shepherds first realizes what the creature is? \_\_\_\_\_

### Model Answers

1. Moved apart

2. Jamie



# Year 8 Progress Test revision

## Topic / Skill:

Spelling Punctuation and Grammar.

## Notes / revision links

Spelling patterns and rules set out in KS 1 and 2

Apostrophes, Commas, Capitals and Full stops.

Tenses, Subject Verb Agreement, Countable, Conjunctions, Prepositions, Transition words (Connectors)

[SPaG Practise Resources](#)

## Practice Questions

**Ex. 3 The following passage has not been edited .There is one error in each line. Write the incorrect word with the correct word against the correct blank number.**

When Ashoka enter the cinema hall ,the  
Film start.It was very dark inside.  
There is nobody to show him the way .  
He count the rows and moved into the  
Fifth row since his tickets has C-12  
Write on it .As it was dark inside  
He moved through the row and sit on a chair.

## Model Answers

### Ex 2 .

#### Incorrect word

A Enter

B Start

C Is

D count

E has

F write

G sit

#### Correct word

entered

started

was

counted

had

written

sat



# Maths

Topic / Skill:

Fractions

Notes / revision links

Fraction of an amount:

<https://www.youtube.com/watch?v=TXJOIs7vXMs>

Fraction to Percentage:

[https://www.youtube.com/watch?v=5fq\\_tcX9Vq4](https://www.youtube.com/watch?v=5fq_tcX9Vq4)

Fraction of a circle

[https://www.youtube.com/watch?v=S27zWv\\_HGyw](https://www.youtube.com/watch?v=S27zWv_HGyw)

Practice Questions

A.

Find  $\frac{2}{5}$  of £35.

B.

Kasey takes 24 minutes to cycle from A to B

Shayban cycles at three quarters of Kasey's speed.

How long does it take Shayban to cycle from A to B?

C.

What is  $\frac{3}{5}$  of 60?

A 30

B 24

C 40

D 32

E 36

Model Answers

A.

First find  $\frac{1}{5}$  by dividing £35 by 5 to get £7.

Now to find  $\frac{2}{5}$ , multiply by 2 to get  $£7 \times 2 = £14$ .

B.

$$\frac{3}{4} \times 24 = \frac{3}{4} \times \frac{24}{1} = 18$$

C.

$$\frac{3}{5} \times 60 = \frac{3}{5} \times \frac{60}{1} = 36$$



# Year 8 Progress Test revision

Topic / Skill:

Decimal

Notes / revision links

Arranging decimals in order:

<https://www.youtube.com/watch?v=6IS2m9uD2vw>

Operations on Decimals:

<https://www.youtube.com/watch?v=kwh4SD1ToFc>

Practice Questions

Write the following numbers in ascending order:

0.2019    0.219    0.291    0.2109

Model Answers

Add zeros to make all decimals have the same number of decimal places

0.2019, 0.2190, 0.2910, 0.2109

Compare.

0.2019, 0.2109, 0.219, 0.291



# Year 8 Progress Test revision

Topic / Skill:

Percentage

Notes / revision links

Percentage of an Amount:

<https://www.youtube.com/watch?v=5e9SoWxDGtQ>

Percentage to Decimal and Fraction:

<https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-ratios-prop-topic/cc-6th-percent-decimal-conversions/v/representing-a-number-as-a-decimal-percent-and-fraction>

## Practice Questions

A.

A gym has 275 members.

40% are bronze members.

28% are silver members.

The rest are gold members.

Work out the number of gold members.

B.

Write the following numbers in ascending order:

$$\frac{5}{6}, 0.5, \frac{5}{12}, 75\%, \frac{1}{3}$$

## Model Answers

A.

$$100\% = 275 \text{ members}$$

$$\begin{aligned} \text{Gold members} &= 100\% - \text{bronze members} - \text{silver members} \\ &= 100\% - 40\% - 28\% \\ &= 32\% \end{aligned}$$

$$32\% \text{ of } 275 = 0.32 * 275 = 88$$

B.

Change each into either fraction, decimal or percentage.

$$\frac{5}{6} \approx 0.83, \frac{5}{12} \approx 0.42, \frac{1}{3} \approx 0.33, \frac{1}{2} = 0.5, 75\% = 0.75$$

Compare then arrange.

$$\frac{1}{3}, \frac{5}{12}, \frac{1}{2}, 75\%, \frac{5}{6}$$



# Year 8 Progress Test revision

Topic / Skill:

Order of Operations (BIDMAS)

Notes / revision links

<https://www.youtube.com/watch?v=Ei1UHOFc5OM>

Practice Questions

Insert brackets to make this true

$$7 + 3 \times 5 - 1 = 49$$

$$7 + 3 \times 5 - 1 = 40$$

$$7 + 3 \times 5 - 1 = 19$$

$$7 + 3 \times 5 - 1 = 21$$

Model Answers

$$(7 + 3) \times 5 - 1 = 49$$

$$(7 + 3) \times (5 - 1) = 40$$

$$7 + 3 \times (5 - 1) = 19$$

$$7 + (3 \times 5) - 1 = 21$$



# Year 8 Progress Test revision

Topic / Skill:

Ratios

Notes / revision links

Ratio

<https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-ratios-prop-topic/intro-to-ratios/v/ratios-intro>

Sharing a quantity in a given ratio:

[https://www.youtube.com/watch?v=1htzC\\_LMBoA](https://www.youtube.com/watch?v=1htzC_LMBoA)

Practice Questions

At a school

number of boys : number of girls = 9 : 7

There are 116 **more** boys than girls.

Work out the total number of students at the school.

Model Answers

The number of shares for boys is two more than for girls. ( $9 - 7 = 2$ )

Each share is 58 students ( $116 / 2 = 58$ )

There are 928 students at the school ( $(9 + 7) \times 58$ )





# Year 8 Progress Test revision

Topic / Skill:

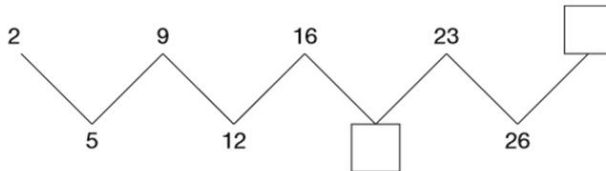
Sequences

Notes / revision links

[https://www.youtube.com/watch?v=tfU1tNf\\_65s](https://www.youtube.com/watch?v=tfU1tNf_65s)

## Practice Questions

- a. Look at this number sequence.  
Write the missing numbers in the boxes.



- b. What is the next number in this sequence?  
23 35 47 59 ?

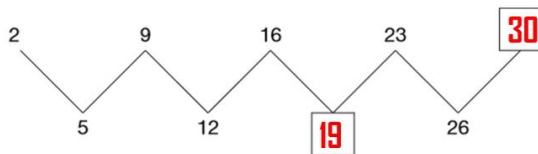
Here is a sequence of numbers:

2, 6, 10, .....

- a. Find the next two numbers in the sequence?  
b. What is the pattern?

## Model Answers

- a. Look at this number sequence.  
Write the missing numbers in the boxes.



- b. What is the next number in this sequence?  
23 35 47 59 ? **71**

**14, 18**

**Add 4**



Topic / Skill:

Charts and Graphs

Notes / revision links

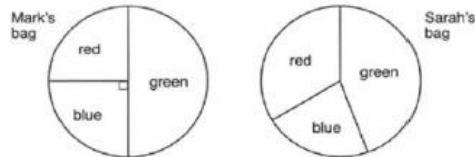
Pie Chart:  
<https://www.youtube.com/watch?v=SxSewF7E1-0>  
<https://www.youtube.com/watch?v=sdMT6iasnYQ>

Bar Chart:  
<https://www.youtube.com/watch?v=3e1SIAPan8E>

Practice Questions

A.

Mark and Sarah each has a bag of coloured counters.  
 These pie charts show the proportion of each colour in their bags.



(i) What percentage of Mark's counters are blue?

Answer: ..... % (1)

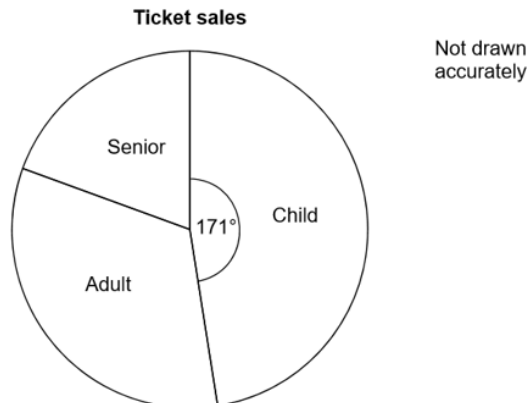
Mark has 40 counters in his bag.

(ii) How many of his counters are not blue?

Answer: ..... (2)

B.

The pie chart shows information about the sales of 800 tickets.  
 There were twice as many adult ticket sales as senior ticket sales.



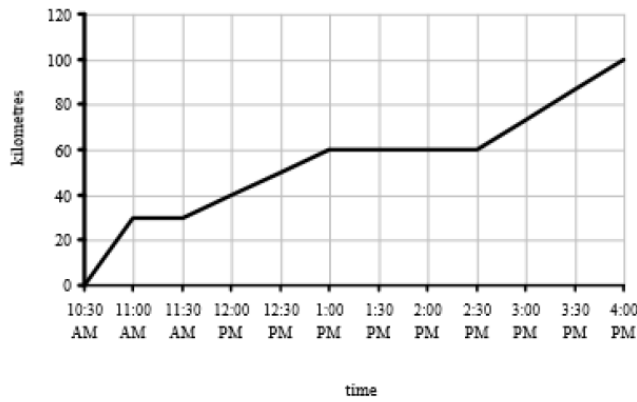
Compute the missing angles in the pie chart.

Show that there were 140 senior ticket sales.



C.

The Beckett family are on holiday. They start from their house and travel by car to visit some local parks. Their journey is shown in the graph below.



How far have they travelled from their house at 13:00? Write your answer in the space below.

\_\_\_\_\_ km

How long did the Beckett family stop for a morning snack? Write your answer in the space below.

\_\_\_\_\_ minutes

## Model Answers

A.

(i) What percentage of Mark's counters are blue?

Answer: ..... **25** ..... % (1)

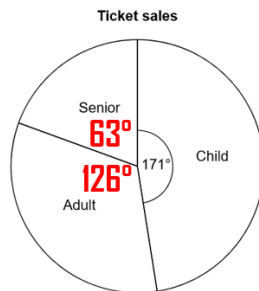
Mark has 40 counters in his bag.

(ii) How many of his counters are not blue?

Answer: ..... **10** ..... (2)

B.

The pie chart shows information about the sales of 800 tickets. There were twice as many adult ticket sales as senior ticket sales.



Not drawn accurately

$$\frac{63}{360} \times 800$$

Compute the missing angles in the pie chart.

Show that there were 140 senior ticket sales.

C.

60 km, 30 minutes



Topic / Skill:

Averages

Notes / revision links

<https://revisionmaths.com/gcse-maths-revision/statistics-handling-data/averages>

Working Out Averages:

<https://www.youtube.com/watch?v=40x0NjdmbTg>

### Practice Questions

A.

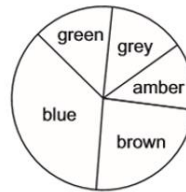
The **average** weight of five parcels is 3.7kg. Four of the parcels are identical and each weigh 3.5kg. What is the weight of the fifth parcel?

B.

a. Marvin made a pie chart to show the eye colours of the children in his class.

What is the modal eye colour?

- A green                      C grey                      E brown
- B blue                        D amber



b. Here are the shoe sizes of the children at a party.

6 6 4 8 7 5 7 6 5

Find the  
Mean:  
Median:  
Mode:  
Range:

### Model Answers

A.

$$\frac{14 + x}{5} = 3.7$$

$$14 + x = 18.5$$

$$x = 18.5 - 14$$

$$x = 4.5$$

B.

a. Marvin made a pie chart to show the eye colours of the children in his class.

What is the modal eye colour?

- A green                      C grey                      E brown
- B blue                        D amber



b. Here are the shoe sizes of the children at a party.

6 6 4 8 7 5 7 6 5

Find the  
Mean: **6**  
Median: **6**  
Mode: **6**  
Range: **4**



Topic / Skill:

Probability

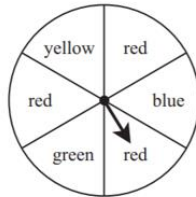
Notes / revision links

<https://www.youtube.com/watch?v=KzfwUEJjG18>

Practice Questions

A.

Use the spinner below to answer the question.



What are all the possible outcomes for the spinner?

- A. red, blue, red, green
- B. yellow, red, blue, red
- C. red, blue, yellow, green
- D. yellow, red, blue, yellow

ii) Calculate the probability of getting red.

B.

Shane has 15 cards. 3 of Shane's cards are aces. Liz takes a card at random from Shane.

What is the probability that Liz takes an ace?

- A  $\frac{3}{5}$
- B  $\frac{1}{3}$
- C  $\frac{1}{5}$
- D  $\frac{1}{4}$
- E  $\frac{3}{8}$

C.

Cliff has a bag of tennis balls. 8 are green, 7 are yellow and 5 are white. He picks a tennis ball at random.

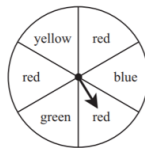
What is the probability that he picks one that is not green?

- A  $\frac{3}{5}$
- B  $\frac{2}{10}$
- C  $\frac{8}{20}$
- D  $\frac{3}{4}$
- E  $\frac{5}{8}$

Model Answers

A.

Use the spinner below to answer the question.



What are all the possible outcomes for the spinner?

- A. red, blue, red, green
- B. yellow, red, blue, red
- C. red, blue, yellow, green
- D. yellow, red, blue, yellow

**C**Calculate the probability (%) of spinning red. **50%**

B.

3 aces out of 15 cards =  $\frac{3}{15} = \frac{1}{5}$ C. No. of not green (yellow and white) =  $7 + 5 = 12$ 

Total number of balls = 20

 $\frac{12}{20} = \frac{3}{5}$



## Year 8 Progress Test revision

Topic / Skill:

Angles

Notes / revision links

Angles forming a line and Angles around a point

<https://www.youtube.com/watch?v=xngyacmFs5k>

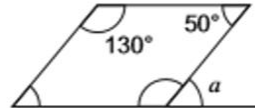
Angles in a Polygon

<https://www.youtube.com/watch?v=gVo8ZrtISp0>

Practice Questions

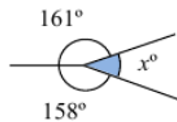
1)

- a. What is the size of angle  $a$ ? Answer: \_\_\_\_\_ °



- b. Two angles form a line. If one angle is twice the other angle, what are the measures of the two angles?

- 2) a. Find the value
- $x$



- b. If the angles in around a point has the ratio 1:2:3, what is the measure of the largest angle?

3)

What is the sum of the interior angles in a decagon?

A. 1800°

B. 1440°

C. 3600°

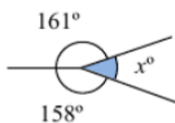
D. 2880°

Model Answers

- a. What is the size of angle  $a$ ? Answer: **50** °

- b. Two angles form a line. If one angle is twice the other angle, what are the measures of the two angles? **60° and 120°**

- a. Find the value  $x$



**These are angles around a point so the total measures should be equal to 360.**  
 **$360 - 161 - 158 = 41$**

- b. If the angles in around a point has the ratio 1:2:3, what is the measure of the largest angle?

**Sharing 360 in the ratio 1:2:3**  
**Answer: 180°**

**Find the value of  $n$  (number of angles or sides in the polygon)**

**Since it is a decagon, so  $n = 10$ .**

**Substitute into the formula:**

$$\begin{aligned} &(n - 2) \times 180^\circ \\ &(10 - 2) \times 180^\circ \\ &8 \times 180^\circ \\ &1400^\circ \end{aligned}$$



# Year 8 Progress Test revision

## Topic / Skill:

Equations

## Notes / revision links

Solving One Step Equations (Addition)

<https://www.youtube.com/watch?v=l3XzepN03KQ>

Solving One Step Equations (Multiplication)

[https://www.youtube.com/watch?v=Qyd\\_v3DGzTM](https://www.youtube.com/watch?v=Qyd_v3DGzTM)

Solving Two Step Equations

<https://www.youtube.com/watch?v=LDliYKYvvdA>

Gradient:

<https://www.youtube.com/watch?v=YtHJP1rZ3pl>

Expanding Brackets:

<https://youtu.be/ZJA1qz4XovY>

## Practice Questions

A.  
Find the value of  $x$  for each of the following equations:

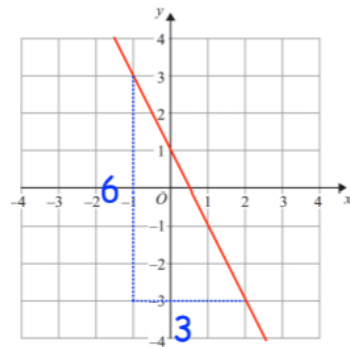
(a)  $5x - 8 = 27$

(b)  $5(2x + 4) = 50$

(c)  $12x = 5x + 28$

(d)  $\frac{5x}{4} + 3 = 13$

B.  
Alisha says that the gradient of the line is 2.  
Explain her mistake.



## Model Answers

A.  
Find the value of  $x$  for each of the following equations:

(a)  $5x - 8 = 27$

Answer ..... **7** ..... [1 mark]

(b)  $5(2x + 4) = 50$

$10x + 20 = 50$

Answer ..... **3** ..... [2 marks]

(c)  $12x = 5x + 28$

Answer ..... **4** ..... [2 marks]

(d)  $\frac{5x}{4} + 3 = 13$

Answer ..... **8** ..... [2 marks]

B. Alisha is incorrect since the movement is downwards so the gradient will be negative.



## Science

Topic / Skill:

Photosynthesis

Notes / revision links

Photosynthesis - <https://www.youtube.com/watch?v=yHVhM-pLRXk>

Practice Questions

1)

Plants make their own food through a process called photosynthesis.

Complete the word equation for photosynthesis.

Choose from the key words:

energy

oxygen

nitrogen

water

carbon dioxide + ..... → glucose + .....

2)

Circle the correct word to complete these sentences about photosynthesis.

Plants need energy to make their food. Energy is transferred from **glucose** / **sunlight**.

They use a green pigment called **chlorophyll** / **haemoglobin** to make the food.

Model Answers

1)

Water

Oxygen

2)

Sunlight

Chlorophyll





# Year 8 Progress Test revision

### Topic / Skill:

- Food energy and absorption
- Apply mathematical concepts and calculate results

### Notes / revision links

- Food Energy - <https://www.youtube.com/watch?v=VtfLS2-ijyE&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=28>
- Store and Transfer of energy - <https://www.youtube.com/watch?v=VUworhvk5rw&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=29>
- Calculating energy - <https://www.youtube.com/watch?v=XcKt3DyM9gk&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=30>

### Practice Questions

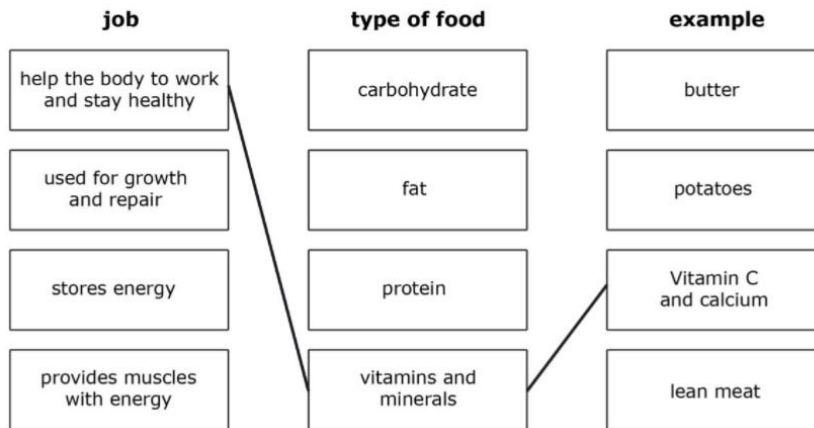
1)

A balanced diet is made up of several different types of food.

Draw a straight line joining the type of food to its correct job.

Draw another straight line joining the type of food with a correct example of the food.

One has been done for you.



2)

Look at the table below.

It shows the amount of energy needed for different activities.

Complete the table to show the energy needed for the three activities.

Choose from these numbers:

780	360	420
-----	-----	-----

	Energy (kJ) used per hour
sleeping	300
sitting	
standing	
walking	
running	3600

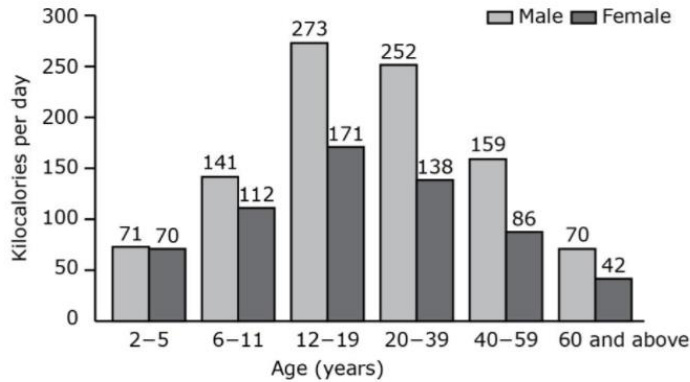


# Year 8 Progress Test revision

3)

Look at the graph below.

It shows the number of kilocalories in sugary drinks drunk each day by different people.



A student looks at the graph and makes some conclusions.

Only three conclusions are correct.

Put a tick (✓) in the boxes next to the **three** correct conclusions.

People drink more sugary drinks the older they get.	<input type="checkbox"/>
Females who exercise drink more sugary drinks than men who do not.	<input type="checkbox"/>
Males drink more sugary drinks each day than females.	<input type="checkbox"/>
Males and females over 60 drink the same amount of sugary drinks.	<input type="checkbox"/>
Babies drink more sugary drinks than teenagers.	<input type="checkbox"/>
Male teenagers drink more sugary drinks than any other group.	<input type="checkbox"/>
Small children and old people don't drink many sugary drinks.	<input type="checkbox"/>

4)

Jake boils some water to make a cup of tea.

He uses a 5 kW kettle that takes 2 minutes to boil the water.

**a** Calculate how much energy Jake used, in kWh, to boil the water.  
Show your working.

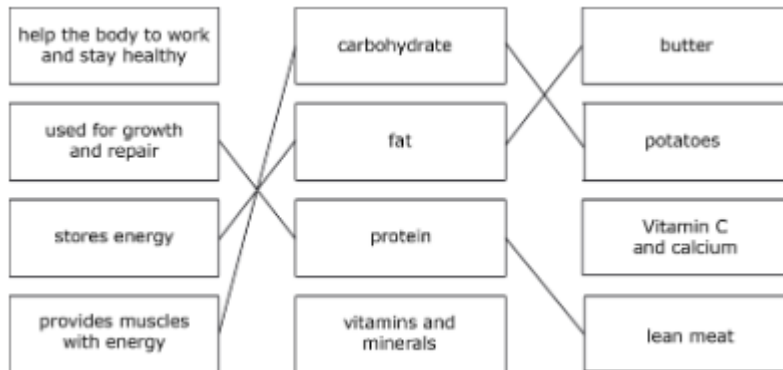
**b** Another unit that measures energy used is the joule (J).  
Calculate how much energy Jake used in joules.



# Year 8 Progress Test revision

## Model Answers

1)



2)

360

420

780

3)

Males drink more sugary drinks each day than females.

Male teenagers drink more sugary drinks than any other group.

Small children and old people don't drink many sugary drinks.

4)

$$\frac{5 \times 2}{60}$$

0.17 kWh

170 x 3600

612 000 J



# Year 8 Progress Test revision

## Topic / Skill:

- The order of metals and carbon in the reactivity series
- Chemical symbols and formulae for elements and compounds
- The varying physical and chemical properties of different elements
- Conservation of mass changes of state and chemical reactions

## Notes / revision links

- Periodic Table - <https://www.youtube.com/watch?v=uPkEGAHo78o>
- Atoms, elements and compounds - <https://www.youtube.com/watch?v=14BEh2EKrM0>
- Metals and non-metals - <https://www.youtube.com/watch?v=ZY3SDgJ5F3Y>
- Atoms - <https://www.youtube.com/watch?v=e9GuJUaX0UM>
- Reactivity of metals - <https://www.youtube.com/watch?v=TGPPPFczOj0>
- Chemical reactions- <https://www.youtube.com/watch?v=WUSrEKv6x94&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=21>

## Practice Questions

1)

Atoms are made from protons, electrons and neutrons.

Each of these three particles has a different charge and different properties.

- a Match the particle to the correct charge.  
Then match charge to the correct property.

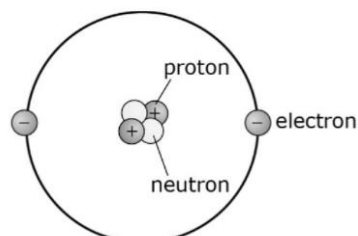
One has been done for you.

particle	charge	property
electron	positive	attracts protons
proton	negative	neither attracts or repels
neutron	no charge	repels protons

Connections: A line connects 'neutron' to 'no charge'. Another line connects 'no charge' to 'neither attracts or repels'.

2)

Look at the diagram of an atom.



It has two protons, two neutrons, and two electrons.

Identify whether this atom is .....

positive	neutral	negative
----------	---------	----------



# Year 8 Progress Test revision

3)

2 The diagram below shows part of the **periodic table**.

										H hydrogen							He helium
Li lithium	Be beryllium											B boron	C carbon	N nitrogen	O oxygen	F fluorine	Ne neon
Na sodium	Mg magnesium											Al aluminum	Si silicon	P phosphorus	S sulfur	Cl chlorine	Ar argon
K potassium	Ca calcium	Sc scandium	Ti titanium	V vanadium	Cr chromium	Mn manganese	Fe iron	Co cobalt	Ni nickel	Cu copper	Zn zinc	Ga gallium	Ge germanium	As arsenic	Se selenium	Br bromine	Kr krypton
Rb rubidium	Sr strontium	Y yttrium	Zr zirconium	Nb niobium	Mo molybdenum	Tc technetium	Ru ruthenium	Rh rhodium	Pd palladium	Ag silver	Cd cadmium	In indium	Sn tin	Sb antimony	Te tellurium	I iodine	Xe xenon
Cs caesium	Ba barium	La lanthanum	Hf hafnium	Ta tantalum	W tungsten	Re rhenium	Os osmium	Ir iridium	Pt platinum	Au gold	Hg mercury	Tl thallium	Pb lead	Bi bismuth	Po polonium	At astatine	Rn radon
Fr francium	Ra radium																

**metals    non-metals**

Metals are on the left hand side of the thick black line.  
 Non-metals are on the right hand side of the thick black line.

Write the letter **M** in the boxes next to the **two** metals.

Kr	krypton	
B	boron	
Sr	strontium	
Ga	gallium	
I	iodine	

4)

Metals have different properties to non-metals.  
 Put ticks (✓) in **two more** boxes to show three properties of metals.  
 The first one has been done for you.

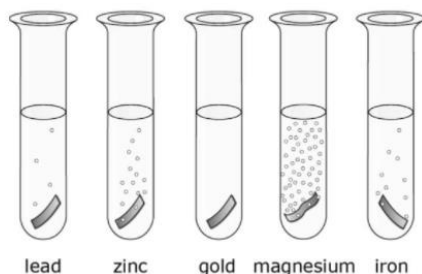
brittle and breaks easily	
shiny when cut	✓
good conductor of electricity	
feels light in weight	
poor conductor of heat	
can be hammered into different shapes	



# Year 8 Progress Test revision

5)

Metals react with acids.  
Some metals are more reactive than others.  
Look at the diagrams below.  
They show different metals reacting with a dilute acid.



Write the names of the metals in the table below to show the order of reactivity.  
The first one has been done for you.

6)

**Mixtures** and **compounds** are both made by putting two different substances together.

Look at the sentences about mixtures and compounds.  
Put ticks (✓) in the boxes next to the **two** correct sentences.

The different substances in compounds can be easily separated.	<input type="checkbox"/>
Mixtures only ever contain two different substances.	<input type="checkbox"/>
The different substances in compounds are joined together.	<input type="checkbox"/>
The amounts of substances in a mixture can change.	<input type="checkbox"/>
Compounds always contain three different substances.	<input type="checkbox"/>





# Year 8 Progress Test revision

**b** Look at the table on the right.  
It shows the reactivity of different metals.

Identify **one** metal from the table that reacts more vigorously with water than calcium.

.....

<b>more reactive</b>
potassium
sodium
lithium
calcium
magnesium
aluminium
zinc
iron
lead
copper
silver
gold
<b>less reactive</b>

9)

Read the sentences about the elements in **Group 1** of the periodic table.

Circle the correct words.

Elements in Group 1 are all **metals** / **non-metals**.

Group 1 elements are very **reactive** / **non-reactive**.

They combine with water to produce an **acidic** / **alkaline** solution.

When they react with water they release **hydrogen** / **oxygen** gas.

10)

Physicists talk about the law of conservation of energy.

Circle the **two** sentences below that best describe this law when grouped together.

**A** Energy cannot be created or destroyed.

**B** Energy can be created but not destroyed.

**C** Energy cannot be created but can be destroyed.







# Year 8 Progress Test revision

## Model Answers

1)



2)

Neutral

3)

Strontium

Gallium

4)

Good conductor of electricity

Can be hammered into different shapes

6)

Lead iron zinc magnesium

7)

The different substances in compounds are joined together.

The amounts of substances in a mixture can change.

8)

Group

Period

9)a

Water

Hydrogen

9b

Potassium / sodium / lithium

10)

metals

reactive

alkaline

hydrogen



# Year 8 Progress Test revision

11)

- A** Energy cannot be created or destroyed.
- D** Energy can be transferred.

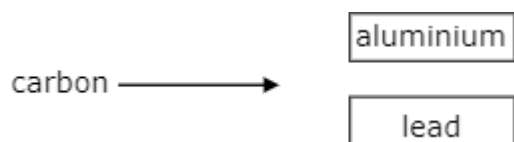
12)a.

carbon

copper

carbon dioxide

12)b



Bromine displaces iodine

Sodium bromide and iodine produced

Iodine cannot displace chlorine

There will be no change



# Year 8 Progress Test revision

## Topic / Skill:

- Food web
- Interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions.

## Notes / revision links

- Food web - <https://www.youtube.com/watch?v=j78g5iRnYBM>
- Interpreting observations - <https://www.youtube.com/watch?v=RvmF9OWrXWA>

## Practice Questions

1)

A camel has adaptations so it can live in a desert.



Look at the statements about camels in the table below.  
Two statements are incorrect.

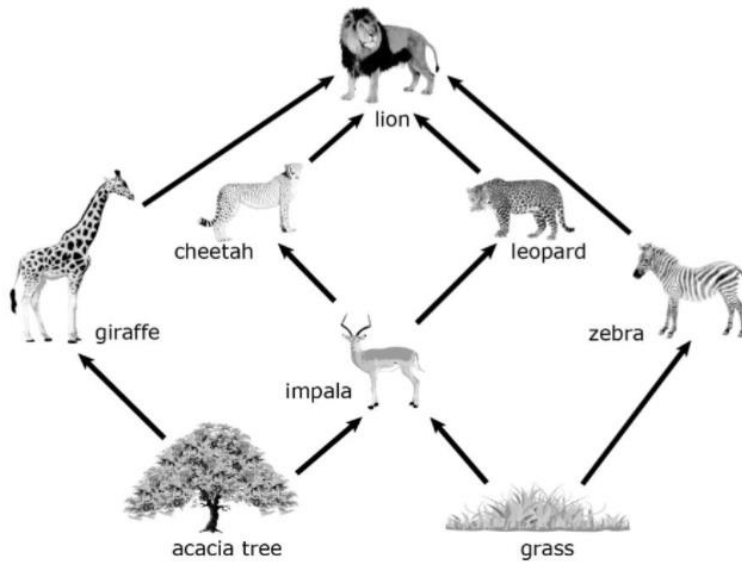
Put crosses (X) in the boxes next to the **two incorrect** statements.

A camel has large, wide feet to walk on sand.	<input type="checkbox"/>
A camel produces a large amount of urine.	<input type="checkbox"/>
A camel stores fat in its hump for energy.	<input type="checkbox"/>
A camel has a large body that heats up slowly.	<input type="checkbox"/>
A camel can only drink small amounts of water.	<input type="checkbox"/>



2)

Lions are still hunted in parts of Africa.



Look at the food web above.

- a Describe what will happen to the population of leopards if there are fewer lions. Justify your answer.
- b Describe what will happen to the population of impalas if there are fewer lions. Justify your answer.
- c Identify one example of a predator and one example of prey shown in the food web.

Predator .....

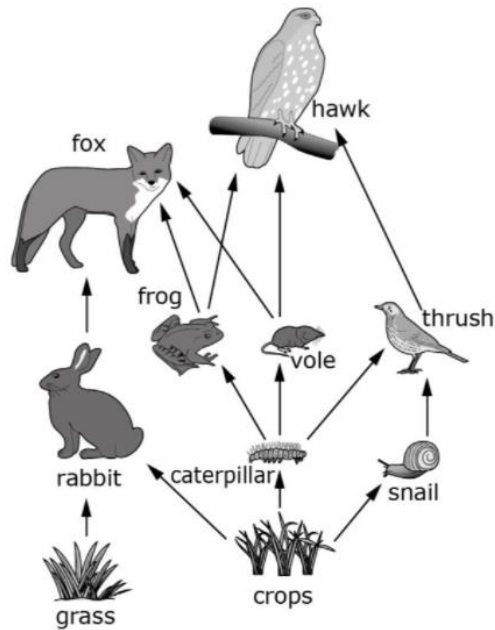
Prey .....



# Year 8 Progress Test revision

3)

Bioaccumulation is when pesticides build up in top predators.  
Look at the food web below.



A farmer sprays the crops with insecticide.

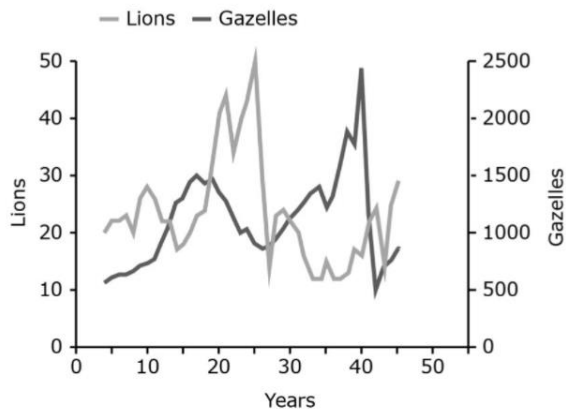
Explain how bioaccumulation will affect the fox and the hawk differently.

4)

Lions eat gazelles.

Look at the graph below.

It shows how the populations of lions and gazelles change over a period of time.



- a Give one conclusion you can draw from the graph about the populations of lions and gazelles.



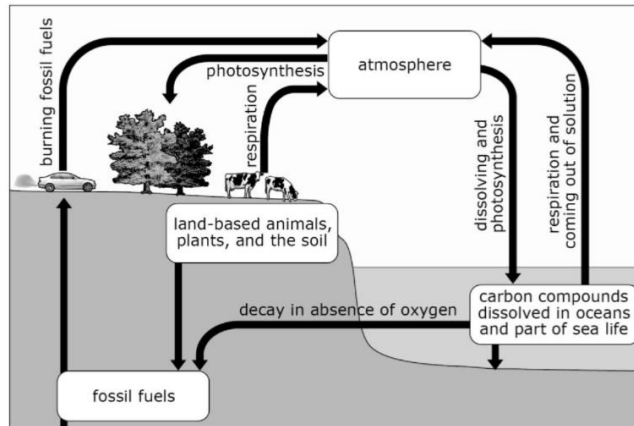
5)

Scientists sometimes talk about open-loop and closed-loop systems.

An open-loop system is where different things can enter and leave the system.

A closed-loop system is where different things cannot enter or leave the system.

Look at the diagram of the carbon cycle below.



Suggest **one** reason for, and **one** reason against this diagram showing a **closed-loop system**.

## Model Answers

1)

Produces a large amount of urine.

Can only drink small amounts of water.

2)

The population of leopards would increase because fewer would be eaten by lions.

The population of impalas would decrease because more leopards and cheetas would be eating them.

Predator – lion / cheetah / leopard

Prey – giraffe / impala / zebra / cheetah / leopard

3)

All of the hawks prey feed on just the contaminated crops.

All of the hawk's food will be contaminated / gets bigger dose.

Some of the foxes' prey does not feed on the contaminated crops.

Only half of the fox's food is contaminated / gets smaller dose.



## Year 8 Progress Test revision

4)

The population of lions and gazelles are dependent on each other.

5)

*Arguments for closed-loop system. One from:*

No arrows shown in or out of carbon cycle

Carbon released as carbon dioxide is used up by plants or stored in fossil fuels, oceans or rocks

*Arguments against a close-loop system. One from:*

Carbon storage is over millions of years so could be regarded as an output/input

Burning fossil fuels releases carbon dioxide much faster than fossil fuels are made

So levels of carbon dioxide in the atmosphere could be changing





# Year 8 Progress Test revision

## Topic / Skill:

- Function of cell and cell organelles, hierarchical organization of multicellular organisms.
- human gas exchange system, aerobic and anaerobic respiration

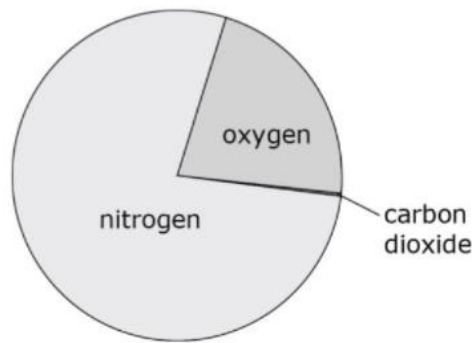
## Notes / revision links

- Cells - <https://www.youtube.com/watch?v=192M4oDLTdc>
- Gas exchange - <https://www.youtube.com/watch?v=IVRSM3SHmGA>
- Aerobic and anaerobic respiration - <https://www.youtube.com/watch?v=HZtXLhm7ISA&t=3s>

## Practice Questions

1)

The pie chart shows the three most common gases in the atmosphere.



Write the names of the three gases in the table next to the correct amount.

Gas	%
	0.04
	21.00
	78.00



# Year 8 Progress Test revision

2)

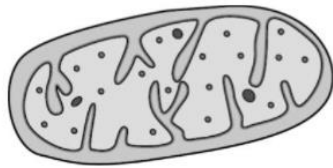
Animals get their energy from respiration.

Look at the word equation for aerobic respiration below.



Complete the equation to show the missing reactant and the missing product.

Mitochondria and red blood cells are both important in aerobic respiration.



a mitochondrion



red blood cells

**a** State the function of mitochondria.

**b** State the function of red blood cells.

## Model Answers

1)

Carbon dioxide	0.04
Oxygen	21.00
Nitrogen	78.00

Oxygen      Carbon dioxide

2)

Mitochondria – where respiration takes place in cells

Red blood cells – carry oxygen to the cells for respiration



# Year 8 Progress Test revision

## Topic / Skill:

- Electric current, measured in amperes, in circuits, series and parallel circuits

## Notes / revision links

- Current and potential difference - <https://www.youtube.com/watch?v=Lva2yqD8MPI>
- Circuits - <https://www.youtube.com/watch?v=7JnqnExpQU4>
- Series and parallel circuits - <https://www.youtube.com/watch?v=dCx-OVUn7Cw&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=49>

## Practice Questions

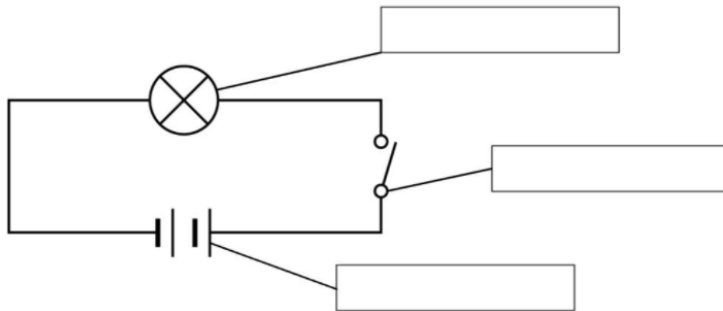
1)

The diagram below shows a simple circuit.

Label the diagram, using the following key words.

Each word can be used once, more than once, or not at all.

**ammeter    battery    bulb    switch    voltmeter**



2)

Volts, amps, and ohms are three words used when describing electrical circuits.

Match the key words with their correct definitions.

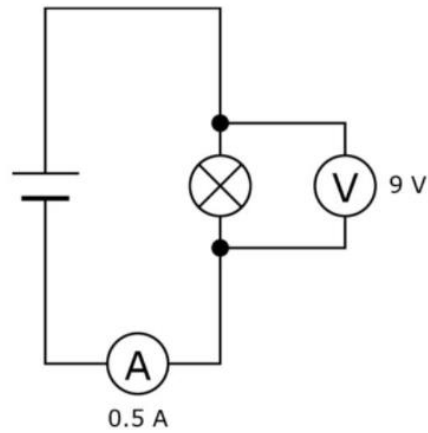
word	definition
volt	A measure of resistance in a circuit
amp	A measure of current or the amount of charge flowing each second
ohm	A measure of potential difference that makes a charge move



# Year 8 Progress Test revision

3)

Look at the circuit below.

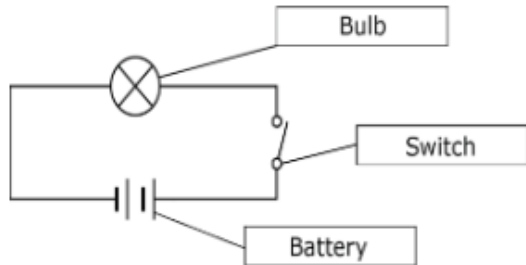


Use the formula below to calculate the **resistance** in the circuit.

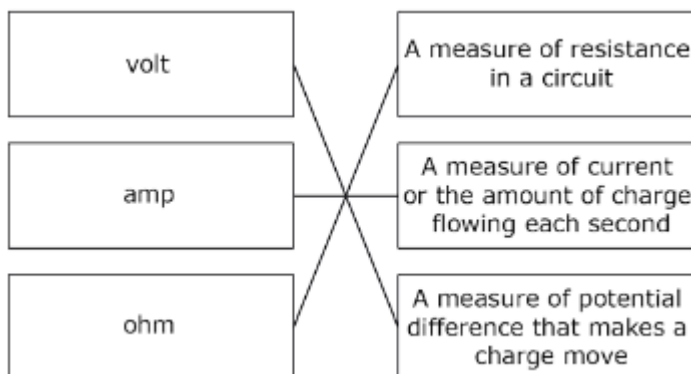
$$\text{resistance } (\Omega) = \frac{\text{potential difference (V)}}{\text{current (A)}}$$

## Model Answers

1)



2)



3)

$$\frac{9}{0.5}$$

18  $\Omega$



# Year 8 Progress Test revision

## Topic / Skill:

- Apply mathematical concepts and calculate results
- Interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions
- Speed and the quantitative relationship between average speed, distance and time (speed = distance ÷ time)

## Notes / revision links

- Speed - <https://www.youtube.com/watch?v=38sxwrCx16o&t=214s>
- Motion graph - <https://www.youtube.com/watch?v=63WzX0Z5lg8&t=189s>
- Pressure - <https://www.youtube.com/watch?v=bYvkvA1tGr0>

## Practice Questions

1)

Suneil is the fastest runner at his school.  
He can run 100 metres in 14 seconds.

His **average** speed over the 100 metres is  $\frac{100}{14} = 7.14$  m/s

- a Which of these formulae is used to calculate Suneil's average speed?

Circle the correct answer.



$\text{speed} = \frac{\text{distance}}{\text{time}}$	$\text{speed} = \frac{\text{time}}{\text{distance}}$
$\text{speed} = \text{time} \times \text{distance}$	

- b Which of these three units is used to measure speed?

Circle the correct answer.

kilowatts per hour	miles per litre	metres per second
--------------------	-----------------	-------------------



## Year 8 Progress Test revision

2)

Look at the formula below for calculating **pressure**.

$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

The pressure when she is standing is

$$\text{pressure} = \frac{500}{250} = 2 \text{ N/cm}^2$$

Jane wears stiletto heels.

The area of one stiletto heel is  $2 \text{ cm}^2$ .

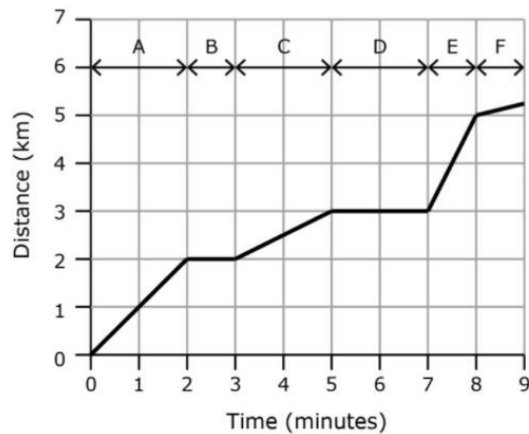
Calculate the pressure on the floor when Jane puts all her weight on **one heel**.

Show your working.

3)

Jasmin gets a lift to school in her mum's car.

Look at the distance–time graph for the journey.



- Identify the point (**A**, **B**, **C**, **D**, or **E**) when the car was moving the fastest?
- Calculate the total time that the car was stationary during the journey?
- Calculate the average speed of the car in km/h from 3 to 5 minutes into the journey.

### Model Answers

1)

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$

Metres per second

2)

$$\frac{500}{2}$$

$$250 \text{ N/cm}^2$$

3)

E

$$(1 \text{ min} + 2 \text{ mins}) = 3 \text{ mins}$$

1 km in 2 mins

30 km per hour



# Year 8 Progress Test revision

**Topic / Skill:**

- Heredity, variation in species

**Notes / revision links**

- Variation - [https://www.youtube.com/watch?v=DjGZp\\_IU5EY](https://www.youtube.com/watch?v=DjGZp_IU5EY)
- Inheritance - <https://www.youtube.com/watch?v=iBoXpURc1es>

**Practice Questions**

1)

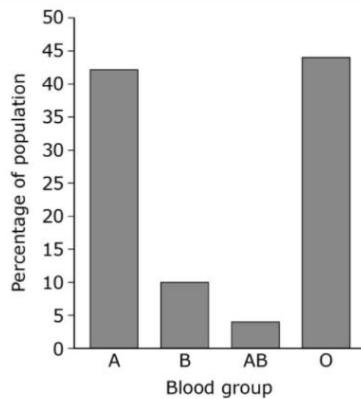
All humans are different.

- a** Some of these differences are caused by our genes.  
State **one** other cause of variation.

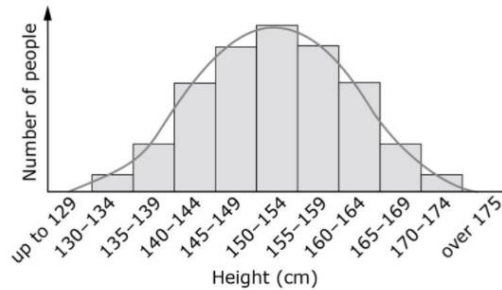
.....

- b** Variation can be continuous or discontinuous.  
Look at the two graphs below, labelled **A** and **B**.

2)



**A**



**B**

One graph shows continuous variation. The other graph shows discontinuous variation.

- i** Identify the graph (**A** or **B**) that shows continuous variation.  
Justify your answer.
- ii** Which graph (**A** or **B**) shows discontinuous variation?  
Justify your answer.



# Year 8 Progress Test revision

3)

The disease tuberculosis (TB) is caused by a type of bacterium.  
TB is becoming resistant to many of the antibiotics used to treat it.  
The following article explains how the bacteria developed this resistance.  
There are three incorrect words in the article.

Circle the **three** incorrect words.

	TB bacteria show variation. This is caused by similarities in their genes.
	Some bacteria are more resistant to the antibiotics than other bacteria.
	The bacteria that have the least resistance survive and multiply.
	These bacteria pass on the resistance genes to their offspring.
	This means that fewer bacteria become resistant to the antibiotic.
	This process is called natural selection.

## Model Answers

1)

The environment

2)

B

It shows a range between two extremes / no limit on the value.

A

The examples are split into separate groups / distinct categories

3)

similarities should be differences

least should be most

fewer should be more





# Year 8 Progress Test revision

## Topic / Skill:

- Human digestive system, and role of bacteria in digestive system.

## Notes / revision links

- Digestive system - <https://www.youtube.com/watch?v=N3CJper8M90>
- Enzymes in digestion - <https://www.youtube.com/watch?v=5R11qTlqqEU>

## Practice Questions

1)

- 1** Digestion is the process where food is broken down so that it can be absorbed by the body.

Look at the numbered parts of the digestive system.

The parts of the digestive system are **not** listed in the correct order.

Put the parts of the digestive system into the correct order.

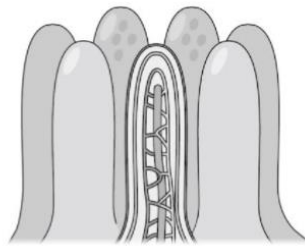
Three of them have been done for you.

stomach	1
large intestine	2
mouth	3
anus	4
small intestine	5
gullet or oesophagus	6
rectum	7

...3... ..5... ..4...

2)

- 2** The wall of the small intestine is lined with finger-like projections called villi (pictured below).



- a** State the function of villi.
- b** Describe how villi are adapted to their function.



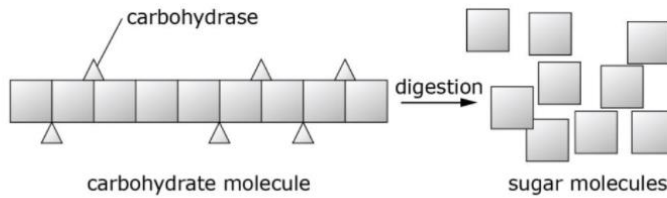
# Year 8 Progress Test revision

3)

Bread contains **starch**.

If you chew a piece of bread but do not swallow it, it starts to taste sweet after a few minutes.

Explain why the chewed bread tastes sweet. Use this diagram to help you.



## Model Answers

1)

3, 6, 1, 5, 2, 7, 4

2)

Absorb food

Large surface area

Good blood supply

3)

Carbohydrase is an enzyme

Starch is a carbohydrate

The enzymes breaks down carbohydrate into sugars that taste sweet



# Year 8 Progress Test revision

## Topic / Skill:

- Interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions

## Notes / revision links

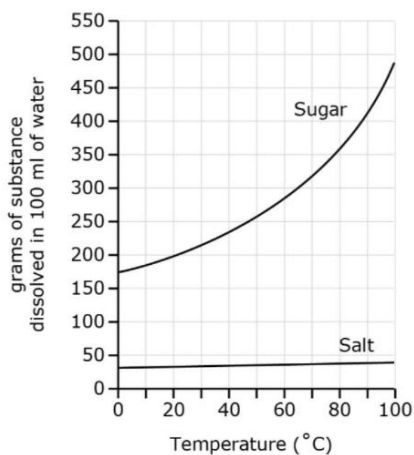
- Solutions - <https://www.youtube.com/watch?v=HHMuxploYFY&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=22>
- Factors affecting solubility - <https://www.youtube.com/watch?v=tpuelGLkrKM&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=23>

## Practice Questions

1)

Sugar and salt both dissolve in water.

The graph shows the solubility of sugar and salt in water at different temperatures.



State **three** conclusions about solubility that you can make from this data.

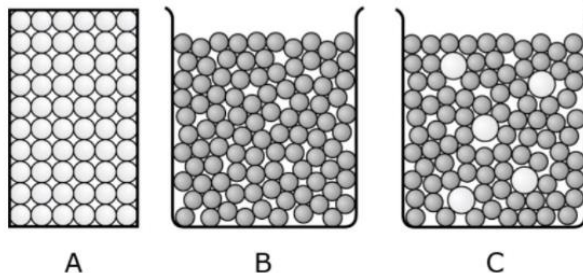
2)

Look at the three diagrams: **A**, **B**, and **C**.

One diagram shows a solid.

One diagram shows a liquid.

One diagram shows a solution.



Identify which diagram (**A**, **B**, or **C**) shows a solution.



# Year 8 Progress Test revision

## Model Answers

1)

Sugar is more soluble than salt.

The solubility of sugar and salt both increase as the temperature increases.

The solubility of sugar increases more than the solubility of salt as temperature increases.

2)

C

## Topic / Skill:

- Structure and function of human skeleton

## Notes / revision links

- Skeletal system - <https://www.youtube.com/watch?v=iVTsIVya5Ws&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=8>

## Practice Questions

1)

The adult human skeletal system consists of 206 \_\_\_\_\_, as well as a network of tendons, ligaments and cartilage.

- cells
- sections
- bones
- Parts

2)

The human skeleton is made up of bone and a softer material called \_\_\_\_\_.

- tendons
- cartilage
- ligaments
- Muscle

3)

Which dietary substance helps to harden bones?

Which **four** of the following are functions of the human skeleton?

- to provide support
- to digest food
- to protect body organs
- to make blood cells
- to exchange gases
- to excrete waste
- to enable the body to move

4)

The skeletal structure that protects the brain is called the \_\_\_\_\_.



# Year 8 Progress Test revision

## Model Answers

1. Bones
2. cartilage
3. Calcium
4. to provide support  
to protect body organs  
to make blood cells  
to enable the body to move
5. skull.  
cranium  
skull  
cranium.

## Topic / Skill:

- Plant reproduction, Structure of the flower, Pollination, wind and insect pollination, Seed dispersal

## Notes / revision links

- Flowers and pollination -  
<https://www.youtube.com/watch?v=bLFBNYUJSOQ&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=13>
- Germination and seed dispersal -  
<https://www.youtube.com/watch?v=xo2VvLa0o3c&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=14>

## Practice Questions

1.(a) The following sentences are about the way some plants reproduce.

- A A bee enters the flower to collect nectar and pollen sticks to the bee's body and legs.
- B The flower bud opens and the coloured petals of the flower attract insects.
- C The pollen cell fuses with the ovule.
- D The pollen grows down to the ovary.
- E The pollen sticks to the stigma.

Put the sentences into the correct order by writing down the letters in the sequence they happen.

The first one has been done for you.

- (i) ....B....
- (ii) .....
- (iii) .....
- (iv) .....
- (v) .....



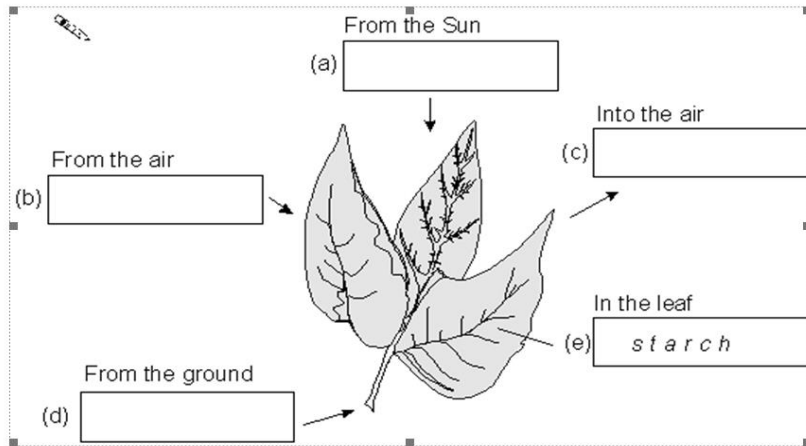
# Year 8 Progress Test revision

(b) Write the letter of the sentence which describes pollination.  
.....

(c) Write the letter of the sentence which describes fertilisation.  
.....

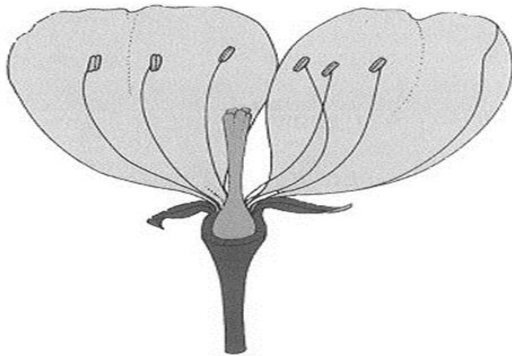
**Q2.** The diagram below represents the process of photosynthesis.  
Complete the diagram correctly.  
Write **ONE** word in **EACH** box from those listed below.

One has been done for you.



**Q3.** (a) The picture shows a flower which has had some of its petals removed and then been cut in half.

Draw a line labelled X to where pollination takes place.



(b) Draw a line labelled Y to where fertilisation takes place.

(c) Fertilisation involves both male and female gametes.  
Complete these **TWO** sentences.

(i) In some plants a fine powder called ..... contains the male gametes.

(ii) The part of a plant that develops into a seed after fertilisation is called the .....



## Model Answers

1.(a)

- A;
- E;
- D;
- C.

(b) • E.

(c)

- C

2. a)

- light

(b)

- carbon dioxide

(c)

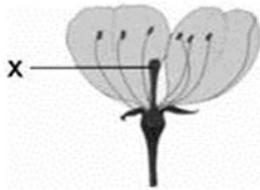
- oxygen.

(d)

- water.

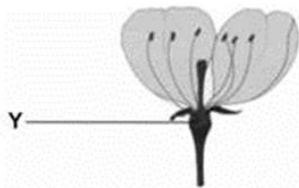
3(a)

- line drawn to any part of stigma and labelled X.



(b)

- line drawn to ovary and labelled Y.



(c)(i) • pollen.(ii) ovule.



Topic / Skill:

- The magnetic effect of a current, electromagnets, D.C. motors (principles only)

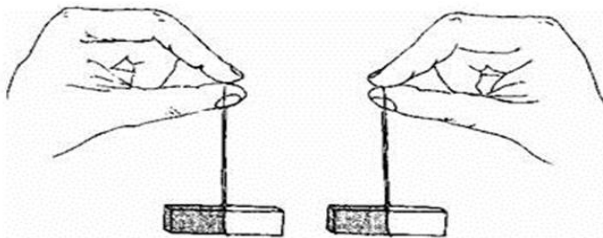
Notes / revision links

- Magnetism - <https://www.youtube.com/watch?v=av7VrSezpHg>
- Electromagnets - <https://www.youtube.com/watch?v=5R11qTlqgEU>

Practice Questions

**Q1. Exploring magnets**

- (a) Wayne has two bar magnets. He hangs each bar magnet from a piece of string. He holds them close together like this:

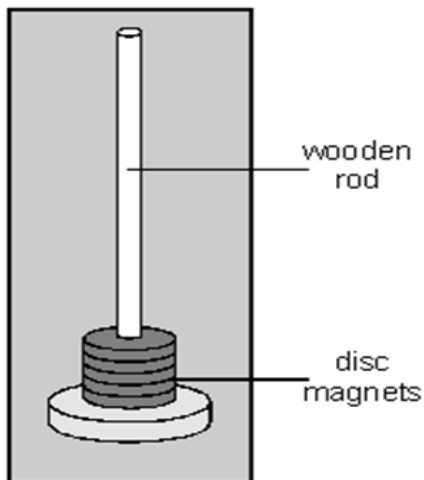


What happens to the magnets when he holds them like this?

.....

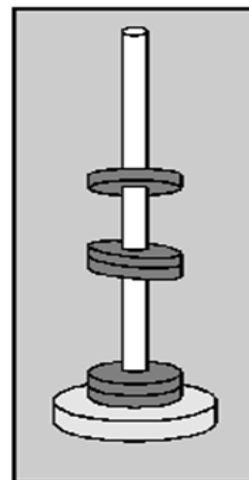
- (b)

Wayne has some disc magnets on a wooden rod.

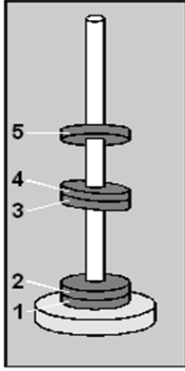


He takes the magnets off the rod. He turns some of them over, then puts all the magnets back on the rod.

Some of the magnets float.







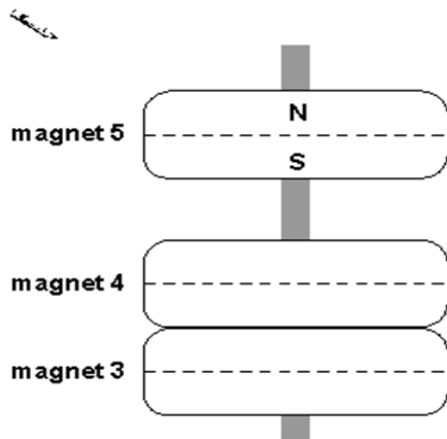
Why does magnet 5 float above magnet 4?

.....

(c) Wayne draws a diagram of the floating magnets. Part of the diagram is given below. It shows magnets 3, 4 and 5.

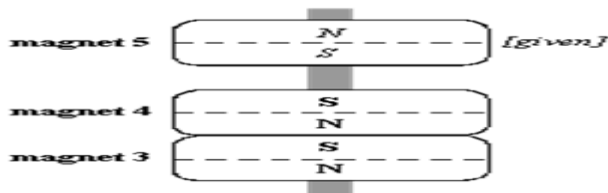
The North and South poles on magnet 5 are labelled.

Label the North (N) and South (S) poles on magnets 3 and 4 below.



### Model Answers

1. (a) • they attract each other.
  - (b) they repel each other;
  - it is repelled;
  - the poles/magnets push each other away.
- (c)





# Year 8 Progress Test revision

## Topic / Skill:

- Change of state, reversibility, shape and density, the anomaly of ice water transition

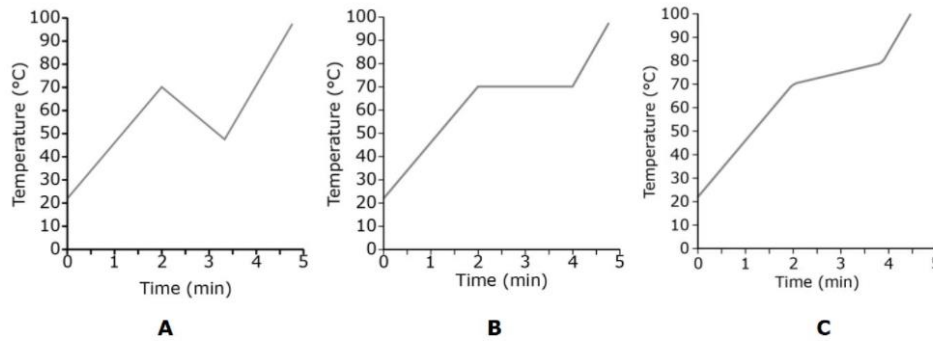
## Notes / revision links

- Anomalous expansion of water - <https://www.youtube.com/watch?v=WbDbH121Nv4>

## Practice Questions

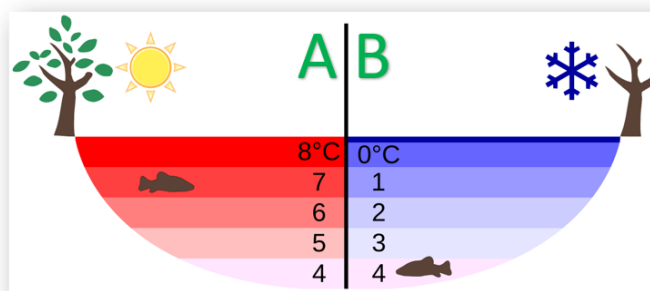
1)

Look at the three graphs below, labelled **A**, **B**, and **C**.  
One graph shows the melting point of a pure substance.  
Another graph shows the melting point of an impure substance.



- a Identify the graph (**A**, **B** or **C**) that shows the melting point of a pure substance. Justify your answer.
- b Identify the graph (**A**, **B** or **C**) that shows the melting point of an impure substance. Justify your answer.

2)



1. Which one represents anomalous water behavior?
2. What can you conclude about the behavior of water using the picture above.
3. Using your understanding, explain how aquatic animals can survive in cold countries even when temperature falls below zero?



## Model Answers

1)

a)

B

No change in temperature as it melts

b)

C

Because temperature increases as it melts

2)

1. B

2. In A water expands as temperature increases beyond 4 degree. In B water expands as temperature decreases below degree. As water expands below 4 degree it becomes less dense as the molecules are wide apart.

3. Only the top layer of the lake or river freezes. Underneath the frozen upper layer, the **water** remains in its liquid form and does not freeze. Also, oxygen **is** trapped beneath the layer of ice. As a result, fish and other **aquatic animals** find it possible **to live** comfortably in the frozen lakes and ponds.



# Year 8 Progress Test revision

## Topic / Skill:

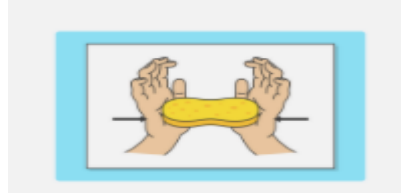
- Balanced and unbalanced forces

## Notes / revision links

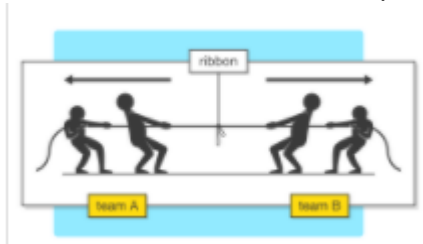
<https://www.bbc.co.uk/bitesize/guides/zttfyrd/revision/3#:~:text=When%20two%20forces%20acting%20on,the%20resultant%20force%20is%20zero.&text=a%20moving%20object%20changes%20speed>,

## Practice Questions

- A force can change the . . .
- Owen is pushing both sides of a sponge together with his hands. The forces acting on the sponge will change its \_\_\_\_\_.



- When the forces acting on a object are balanced, the object will be . . .
- Team A and team B are both pulling the rope with an equal force. What will happen to the ribbon that is tied to the rope?



- If the thrust force acting on the a moving plane is smaller than the force of air resistance acting against it, the plane will . . .



## Model Answers

- speed, direction or shape of an object.
- shape
- stationary or moving at a constant speed.
- The ribbon will stay in the same place.
- slow down



# Year 8 Progress Test revision

## Topic / Skill:

- Our Sun as a star, other stars in our galaxy, other galaxies
- The seasons and the Earth's tilt, day length at different times of year, in different hemispheres.

## Notes / revision links

- Space - <https://www.youtube.com/watch?v=49dEv5tF8Q&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=103>
- Earth's orbit and seasons - <https://www.youtube.com/watch?v=PlpVf6SJrUw&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=104>

## Practice Questions

1. What is the universe made up of?
2. There are billions of galaxies in the universe. What is a galaxy made up of?
3. What is one light year equal to?
4. The Earth's \_\_\_\_\_ is an imaginary line that runs through the centre of the Earth from the North Pole to the South Pole.
5. The number of hours in a day is different on other planets. This is because each planet . . .-----
6. The time taken for the Earth to complete one rotation about its axis is called a \_\_\_\_\_.

## Model Answers

1. everything in space
2. billions of stars
3. the distance travelled by light in one year
4. Axis
5. rotates about its axis at a different speed
6. Day



# Year 8 Progress Test revision

## Topic / Skill:

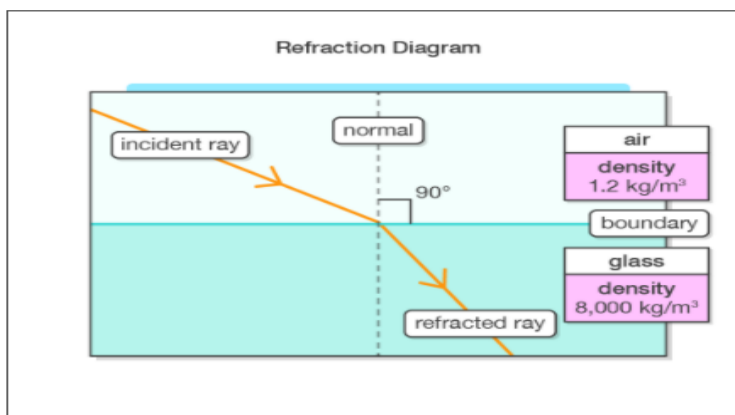
- Use of ray model to explain imaging in mirrors, the pinhole camera, the refraction of light and action of convex lens in focusing (qualitative); the human eye

## Notes / revision links

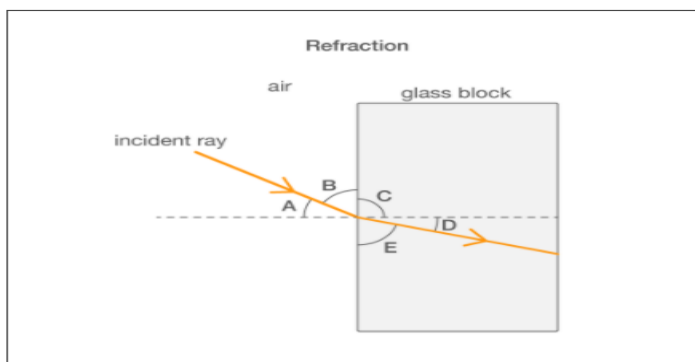
- Reflection - <https://www.youtube.com/watch?v=VYpQJ8GN50s&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=112>
- Refraction - [https://www.youtube.com/watch?v=s\\_vwTY\\_CzSA&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=113](https://www.youtube.com/watch?v=s_vwTY_CzSA&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=113)
- Pinhole camera - <https://www.youtube.com/watch?v=z0m14XZ02sA&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=114>

## Practice Questions

1. Light waves change speed when they pass across the boundary between two transparent mediums with different densities. The change in speed causes the light waves to . . .



2. Which angle on the diagram is the angle of refraction?



3. In red light, a green pear appears \_\_\_\_\_ because the pear absorbs the red light.

## Model Answers

1. Change direction
2. Angle D
3. Black



# Year 8 Progress Test revision

## Topic / Skill:

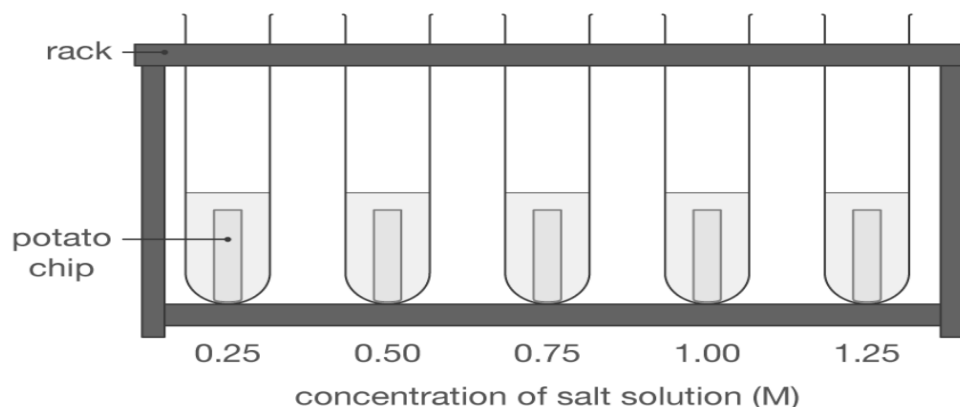
- Select, plan and carry out the most appropriate types of scientific enquiries to test predictions, including identifying independent, dependent and control variables, where appropriate
- Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety and evaluate risks
- Evaluate risks

## Notes / revision links

## Practice Questions

1. What is the independent variable in an investigation?
2. What is the dependent variable in an investigation?
3. What is a control variable?
4. What is the independent variable in this investigation?
5. What is the dependent variable in this investigation?
6. Which two variables should the student control in this investigation?

A student is investigating how the concentration of salt solution affects the mass of potato chips.



## Model Answers

1. the variable that you change or select the values for.
2. the variable that you measure or observe to get your results
3. a variable that must remain the same throughout an investigation
4. concentration of salt solution
5. change in mass of the potato chips
6. surface area of potato chips  
volume of salt solution



# Year 8 Progress Test revision

### Topic / Skill:

- The structure of the Earth, The rock cycle and the formation of igneous, sedimentary and metamorphic rocks, Earth as a source of limited resources
- Fuels and energy resources, temperature difference between two objects leading to energy transfer from hotter to cooler one.

### Notes / revision links

- Earth - <https://www.youtube.com/watch?v=Kd7-XwBYT2U&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=93>
- Sedimentary rocks - <https://www.youtube.com/watch?v=l0SbAzT8JxA&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=94>
- Igneous and metamorphic rocks - <https://www.youtube.com/watch?v=dK2bF8LIZFA&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=95>
- Energy resources - <https://www.youtube.com/watch?v=-btLTehMyuM>

### Practice Questions

#### Q1. Rocks

(a) Sally investigated some rocks.



She recorded her observations.

rock	observation		
	can it be scratched with a knife?	does it let water through?	can it be split into flat pieces?
sandstone	yes	yes	no
granite	no	no	no
slate	yes	no	yes
marble	yes	no	no





# Year 8 Progress Test revision

Look at the table.

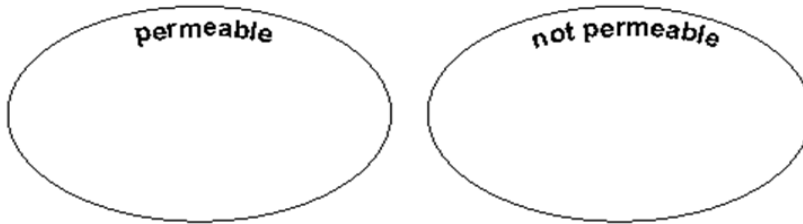
Which rock **cannot** be scratched with a knife?

.....

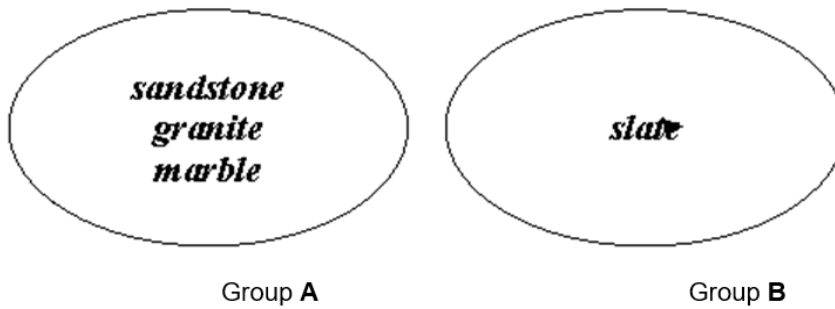
(b) She sorted **all** the rocks by permeability.

Look at the table.

Write the names of the rocks in each group.



(c) Next she sorted them like this.



Look at the table.

Describe why the rocks in group **A** make a group.

.....

## Model Answers

1. (a) granite.

(b)



(c) they **cannot** be split into **flat** pieces.



# Year 8 Progress Test revision

## Topic / Skill:

- Sound needs a medium to travel, the speed of sound in air, in water, in solids

## Notes / revision links

- Sound -  
<https://www.youtube.com/watch?v=t3so3MdVRbU&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=107>
- Waves -  
<https://www.youtube.com/watch?v=YuVz71ziCiQ&list=PLyf3QQ9ddzgngBzZiwWcEBuRoKUYaXS6N&index=106>

## Practice Questions

1. Which states of matter can sound travel through?
2. Sound is transmitted when \_\_\_\_\_ in a solid, liquid or gas \_\_\_\_\_ and \_\_\_\_\_ with each other.
3. Niamh, Wendy and Paul are all discussing why you can't hear sounds in space. Who has the correct explanation?

**Niamh**  
You cannot hear sounds in space because there are no particles to vibrate.

**Wendy**  
You cannot hear sounds in space because in space, no-one can hear you scream.

**Paul**  
You cannot hear sounds in space because sound can only travel through the air, and there is no air in space.

4. Which part of the body detects sound?
5. The ear helps us to hear sounds. The ear lobe funnels the vibrations from a sound wave into the \_\_\_\_\_.

## Model Answers

1. Sound can travel through any substance that contains particles, whether it is a solid, liquid or gas.
2. particles
  - vibrate
  - Collide
3. Niamh
4. Ear
5. Ear canal