

# Strategies to Revise

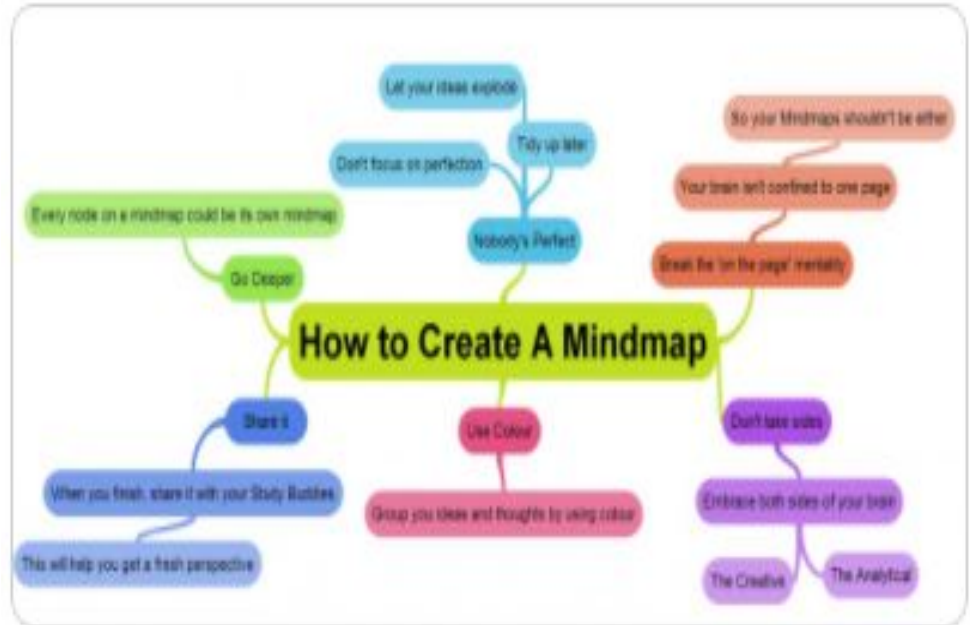
- Mind-maps
- Use post-its of keywords
- Create flash Cards
- Listen to revision podcasts
- Ask family and friends to test you
- Highlight key information on worksheets
- Chants/Raps
- Exam questions and mark scheme
- Write your own questions
- Make mnemonics to help you remember processes

# Mind Map

Put the main idea in the middle of the page.

Use colours to organize your thoughts into sections

Images can help you to remember the key information.



# Flashcards



Create your flashcards of key information / key words.

Include pictures / images to help you remember the information.

Use these to test yourself regularly - or ask friends / family to test you.

# Flashcards



## Learning

Write a keyword / phrase on one side and the definition / meaning on the other.

Read the cards and test your child/yourself

Pick cards at random to quiz if you can give the definition/keyword without looking at the other side

## Look, Cover, Write Check

Read the set of keywords

Put them to one side and try to recall the keywords and the definitions

Check them

## Grouping

Group the cards into different piles, based on:

- Definitions known
- Definitions unsure
- Definitions unknown

And focus on the unsure and unknown ones



# Digital Revision

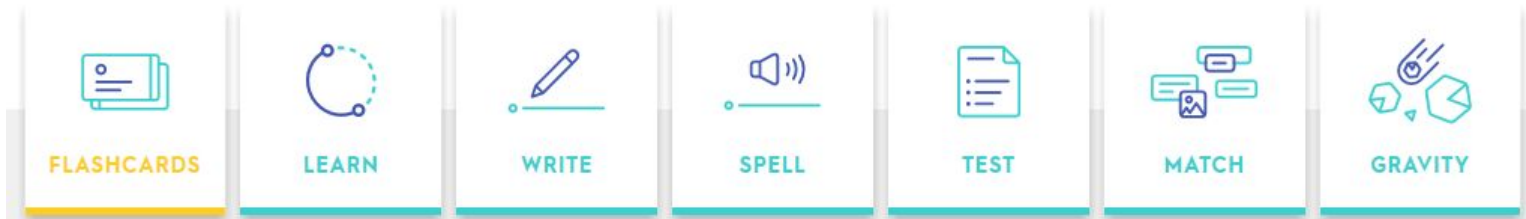
Subject	Name	Link
ICT	Know It All Ninja	<a href="https://www.knowitallninja.com/">https://www.knowitallninja.com/</a>
Computer Science	Seneca	<a href="https://senecalearning.com/en-GB/">https://senecalearning.com/en-GB/</a>
French	Lots on the Google classroom!!!	<a href="https://senecalearning.com/en-GB/">https://senecalearning.com/en-GB/</a> (AQA French) <a href="https://www.languagesonline.org.uk/Hotpotatoes/frenchindex.html#gsc.tab=0">https://www.languagesonline.org.uk/Hotpotatoes/frenchindex.html#gsc.tab=0</a> (French grammar) BBC Bitesize ( <a href="https://www.bbc.co.uk/bitesize/examspecs/zr8bmfr">https://www.bbc.co.uk/bitesize/examspecs/zr8bmfr</a> ) Quizlet - vocab and past questions ( <a href="https://quizlet.com/en-gb/content/aqa-gcse-french-resources">https://quizlet.com/en-gb/content/aqa-gcse-french-resources</a> )
Spanish	Lots on the Google classroom!!!	<a href="https://senecalearning.com/en-GB/">https://senecalearning.com/en-GB/</a> (AQA Spanish) <a href="https://www.languagesonline.org.uk/Hotpotatoes/index.html#google_vignette">https://www.languagesonline.org.uk/Hotpotatoes/index.html#google_vignette</a> (Spanish grammar) BBC Bitesize

# Quizlet

<https://quizlet.com/gb/723739761/component=31auzp&x=1jqt>

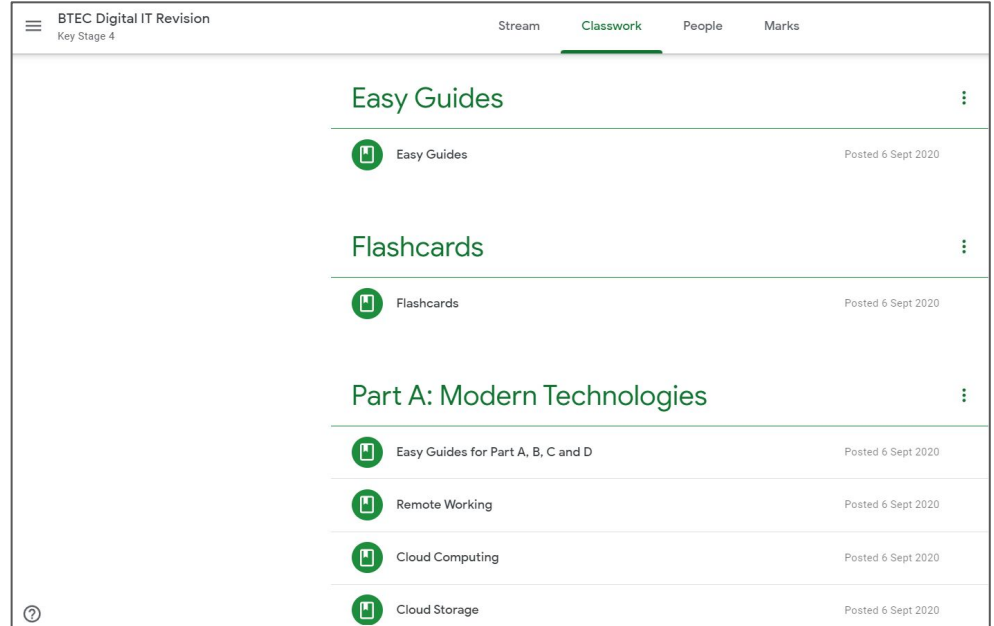


[?i](#)



# Google Classroom

- All pupils have access to the Google Classroom, for each of their subjects.
- Some subjects will place extra revision resources on here.





# Revision through Song

- The Macbeth song

<https://www.youtube.com/watch?v=YXPVS-n8-0o>

- Parallelogram song

<https://www.youtube.com/watch?v=Rpkjb4Tx844>

Use youtube to find songs on key topics – your teachers will be able to help you with this.

Listen to the song at different times: while you are having breakfast, while you are walking home from school, while you are tidying your room!



Listen to one of these songs  
– Write down three things  
you can remember.

You can also learn formulas and ideas through song.



# Easy Guides

## What are they? How can they be used?

**Physics 2 paper, 14-19 mins, 40 marks**  
Energy transfer and systems  
Electricity and circuits  
Resistors

**Energy**  
The different energy stores are:  
Kinetic, chemical, gravitational potential, elastic potential, electrostatic, magnetic and nuclear.

When an object (or objects) changes, energy is transferred. Energy is always dissipated and stored in less useful ways.  
Energy can be transferred by:  
Heating  
Forces doing work (i.e. lifting a box off the floor).  
Electrical equipment (i.e. an electric toothbrush transferring energy from the chemical store of the batteries to the kinetic store of its bristles).

**Work and power**  
To make an object move we have to apply a force to it. When we transfer energy, work is done if they are the same thing.  
To calculate the work done we use:

work (in Joules) = force (in Newtons) X distance (in metres)  
Power is a measure of how quickly energy is transferred. It is measured in Watts, and one watt is equal to one Joule being transferred per second.

**Power (W) = work done (J) / time taken (in seconds)**

**Force**  
Force is a vector - this means they have a size and a direction. We use arrows to represent them.  
A free body diagram is a way of showing an object and all of the forces acting on it.

**Example of free body diagram**

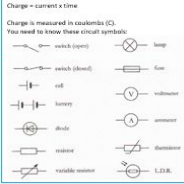
A resultant force is the overall force on an object. If the forces are opposite and equal they are in **equilibrium**.

**Circuits**  
In a circuit, the components are connected in a line, they are all on at the same time. Removing one component will turn everything else off. The voltage of the battery is shared between all of the components, in practice this means bulbs will all dimmer. The current is the same at all places in a series circuit.  
**Parallel circuits** - each component is connected separately and so can work if other components are broken or removed. Each component has the same voltage across it as the battery (if it's 120V) and so bulbs will be brighter. The current splits and the current in the main branch of the circuit is equal to the sum of the currents in the smaller branches.

**Current and circuits**  
Current is the flow of an electric charge (i.e. electrons or ions) around in a circuit. It will only flow through a component if there is a potential difference across the component.  
The unit for current is the Ampere (amp - A)  
Potential difference is the driving force that pushes the current around and is measured in volts (V).  
Resistance is anything that slows the flow down, measured in ohms (Ω).

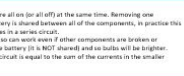
These are linked in the equation  
 $V = I \times R$   
We can also calculate the charge that flows around a circuit using:  
Charge = current x time

Change in electrical energy in coulombs (C)  
We can also calculate the power of a circuit by including the current and potential difference.  
 $P = I \times V$



**Potential difference and resistance**  
As current flows through a circuit, the charges transfer to calculate energy transferred in a circuit.  
Energy = charge moved X potential difference  
 $E = Q \times V$   
Potential difference = current X resistance  
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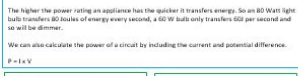
When electricity flows through an object it has to work against resistance. This causes a transfer of energy and so energy is usually lost as heat. As the particles in the potential get hot they vibrate more making it harder for the electrons to get through the resistor. The resistance increases.  
Flaming's left-hand rule is used to find the direction of the movement of the wire if we know the direction of the magnetic field (from N → S) and the direction the current flows in.



**Energy in circuits**  
The amount of energy transferred depends on the current, the voltage and the time.  
 $E = I \times V \times t$   
Energy transfer and systems  
Objects transfer energy to useful forms of energy, such as a kettle transferring electrical energy from the mains to thermal energy in the water, a torch transfers chemical energy in the battery, to electrical energy in the wires to light (and heat) energy in the bulb.  
Heat energy is always lost to the environment, making objects more efficient reduces the amount of energy lost.

**Power in circuits**  
Power tells us how much energy is being transferred over a particular time.  
Power = energy/time  
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The higher the power rating an appliance has the quicker it transfers energy. So an 80 Watt light bulb transfers 80 Joules of energy every second, a 40 W bulb only transfers 40 per second and so will be dimmer.

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**Electromagnetic induction**  
If you move a magnet into a coil of wire or move a coil of wire near a magnet then a voltage will be induced. Reversing the movement will reverse the magnetic field and so the voltage. If you move the magnet faster, increase the strength of the magnetic field or have more coils of wire then a larger voltage will be induced.

**Flaming's rule**  
These are used in lots of ways:  
Cranes have electromagnets (that can be turned on and off) in scrap yards.  
Maglev trains use magnets to make the train float slightly above the track (reducing friction).  
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**To find the size of the force on the wire we use:**  
Force = magnet strength X current X length  
 $F = B \times I \times L$

**Flexibility in the home**  
Household electricity is AC (alternating current). The voltage is 230V and the frequency is 50Hz (meaning the direction of the current changes time 50 times per second).  
Plug contains 3 wires:  
Blue - Bottom Left, neutral wire that carries the electricity out of the circuit.  
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**Safe**  
If too much current flows through the fuse it overheats and melts. This prevents any more current from entering.

**Current**  
To increase the strength of a current flowing through a wire we can wrap it into a long coil called a **solenoid**.  
We can also use more batteries or could put an iron core through the middle of the loop.  
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Magnetic fields  
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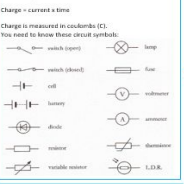
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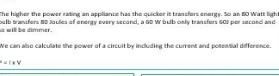
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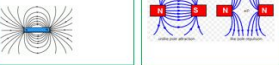
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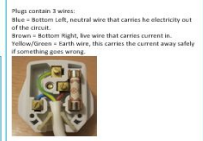


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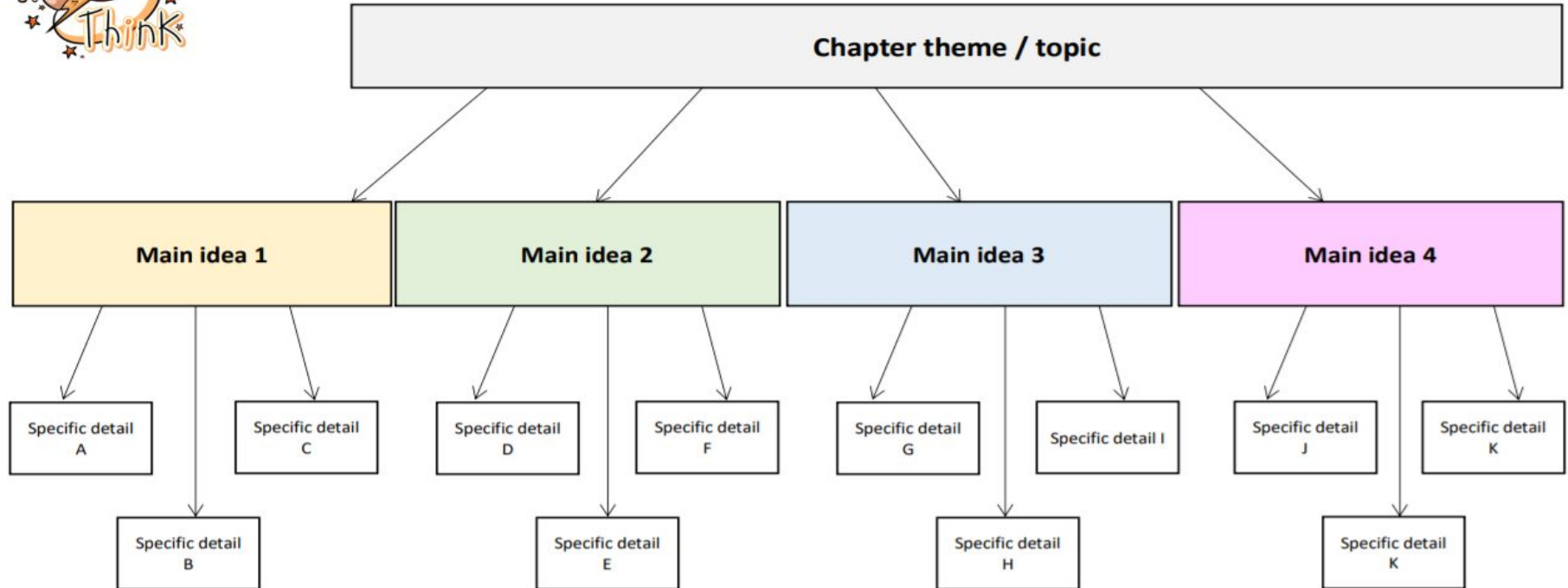
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# Easy Guide: Think



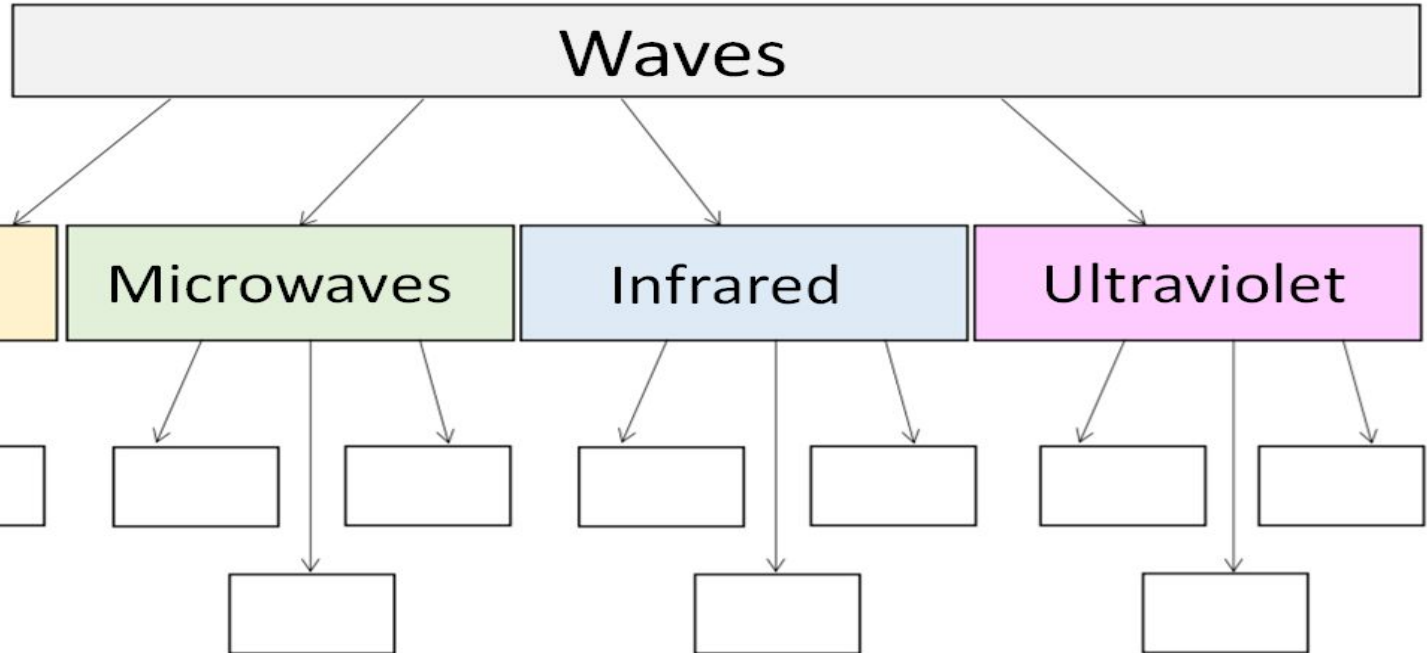
Using the 'physics 1 paper' easy guide, complete the following.





# Easy Guide: Think

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# Revision Guides

Use the revision guide pages 1 to 5.

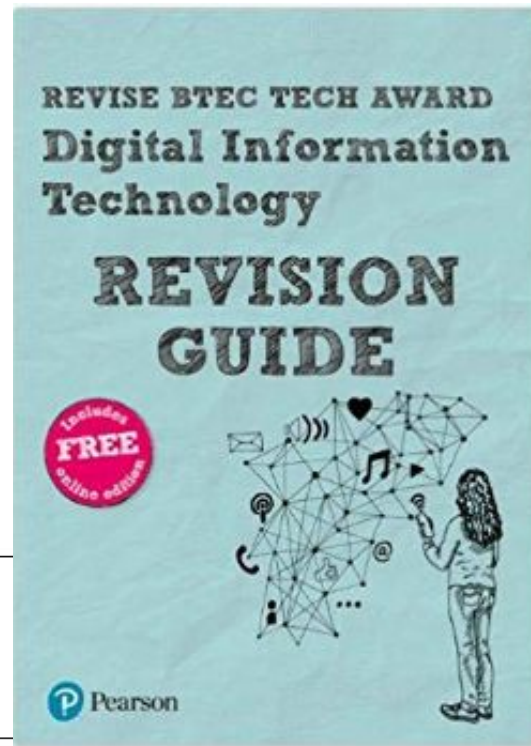
## Exam Question Quick Quiz 1

1. Explain what a personal hotspot is.
2. Give one example of when you might use a personal hotspot.
3. State two benefits of connecting to open Wi-Fi in a café.
4. Give two reasons why mobile internet may not be available everywhere.
5. State two drawbacks of using open Wi-Fi.

**C: Answers in revision guide**

**E: Use pages 1 to 5**

**K: Answer independently**



# Transforming Information

Turn the material you have read into up to six pictures – one per paragraph or one per key piece of information. The pictures must represent the information so that they can act as a reminder of what the text said. Underneath each picture, explain your thinking.

<b>1.</b>	<b>2.</b>	<b>3.</b>

# Quizzing

Read the text and come up with 20 questions to ask someone about the text.

	Question	Answer
<b>1</b>		
<b>2</b>		
<b>3</b>		
<b>4</b>		
<b>5</b>		



You can use stories to recall information



9



# Here is a story to recall information...



Henry got on his bike, eating his apple. As he swerved past the dog, he dropped his can of coke. Eventually, he got to the airport waiting for his plane. He got a cup of coffee and shook hands with the check in operator as he checked his case for his beach ball and his false teeth - but only 9 of them were there. Yet it didn't matter as he would be flying with the birds over the trees later, looking down over the big houses with the pianos and the expensive cars. He had some birthday cake as he put his umbrella away. He knew he would celebrate with his birthday with his party hat later.

Now it's your turn. Write a story with these images



# Using Images to Aid Memory

## Photosynthesis

Sunlight shines on the leaves.

Cells in all green parts of the plants, but concentrated near the upper surface of the leaf, absorb this sunlight.(the parts of the cells that do this are called chloroplasts).

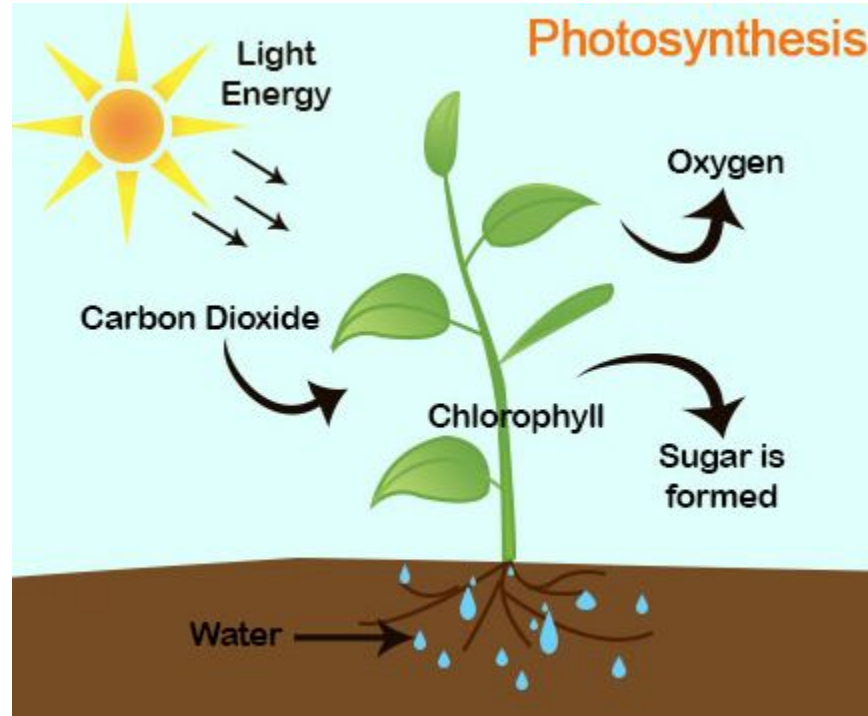
Carbon dioxide is also taken in to the leaves

Water, which has been taken up by the roots, travels up the plant stem/trunk to the leaves.

A chemical reaction happens where the water and carbon dioxide react, using the sunlight's energy to produce water and sugar (glucose).

The oxygen is released through the stomata and the glucose is used as an energy source for the plant to power life processes or turned into starch to be stored.

# Using Images to Aid Memory



# Using Images to Aid Memory

Have a go.... Speed, Distance and Time

Can you draw a diagram to show the stages involved in working out the speed of an object, measuring distance and time taken, selecting equipment to do this, then applying the  $s=d/t$  equation?

# Revision Timetable

<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
<b>What other commitments do I have this week?</b>					<b>Notes/Things to remember:</b>	