

Hey! What does that mean?

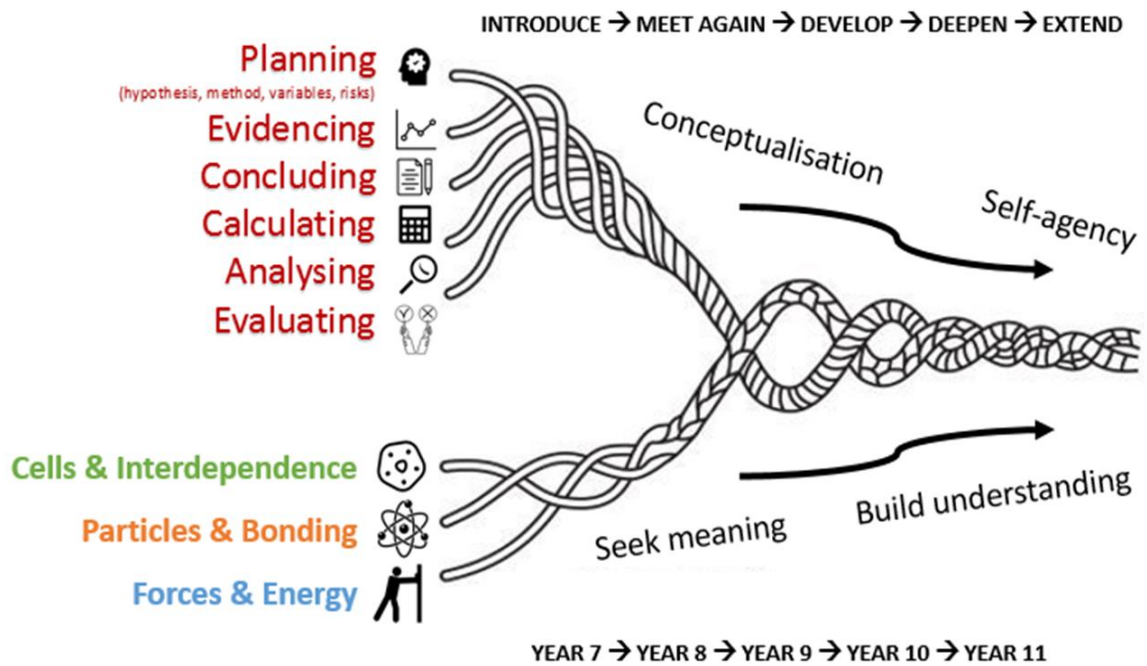


## HWA SCIENCE

### Year 6-7 Transition Tasks Science

July – August 2020

### CLF KS3 Curriculum Diagram



Hey! What does that mean?

## ***What do you think about science?***

### ***Part 1***

For each of the statements below, show whether you

*agree*



*disagree*



*are not sure*



Plants' roots take in food from the soil.

Water, carbon dioxide and light are plant foods.

Plants breathe in oxygen at night, and carbon dioxide during the day.

Plants photosynthesise but do not respire.

An insect (such as a bee) is not an animal.

Living things are made of cells which are as small as atoms.

Atoms and animal cells are about the same size.

Air does not weigh anything.

Vacuums 'suck' air in.

Sugar disappears when it dissolves.

When ice is heated, its particles melt.

The space between particles is full of air.

Particles in a liquid are smaller than in a solid.

When a car engine burns petrol it uses up energy.

There are different forms of energy.

Hey! What does that mean?

Electricity gets used up as it goes around a circuit.

Light travels further at night than in the daytime.

To keep an object moving a force must be kept on it.

Objects stop moving when their force runs out.


## Part 2

Pick 2 or 3 of the questions from topics you are interested in. research these topics and after you have researched the ideas see if you still have the same answer or if you have changed your mind. If you did change your mind try to think about why you needed to rethink your ideas.

Hey! What does that mean?

In Science we sometimes use word in a very specific way. Sometimes the Scientific meaning is very different from the everyday meaning.

For example in everyday use a key is used to unlock something. In Scientific use a key is a diagram or chart to help work out what a plant or animal is.

Everyday key	Scientific key
	<p style="text-align: center;"><b>Key to Macroinvertebrate Life in the Pond</b></p> <pre> graph TD     Root[Key to Macroinvertebrate Life in the Pond] --&gt; Shells[Shells]     Root --&gt; NoShells[No Shells]     Shells --&gt; SingleShells[Single Shells]     Shells --&gt; DoubleShells[Double Shells]     NoShells --&gt; NoBackbone[No Backbone]     NoShells --&gt; WithBackbone[With Backbone]     NoBackbone --&gt; Legs[Legs]     NoBackbone --&gt; NoLegs[No Legs]     WithBackbone --&gt; Tentacles[Tentacles, Brushes, or Tails]     WithBackbone --&gt; Microscopic[Microscopic]     WithBackbone --&gt; WormLike[Worm-Like]     Legs --&gt; TenLegs[10+ Legs]     Legs --&gt; FourPairs[4 Pairs of Legs]     Legs --&gt; ThreePairs[3 Pairs of Legs]     NoLegs --&gt; NoWings[No Wings]     NoLegs --&gt; Wings[Wings]     NoWings --&gt; NoObvious[No Obvious Tails]     NoWings --&gt; ThreeTails[3 Tails]     Wings --&gt; Leathery[Leathery Wings]     Wings --&gt; BeetleLike[Beetle-Like, Hard Wings]           </pre>

### Task 1

Use a dictionary and/or the internet to complete the table below.

	Everyday meaning	Scientific meaning
Material		
Weight		
Mole		
Plastic		
Conductor		

Hey! What does that mean?

Circuit		
Saturated		
Pure		
Pressure		
Force		
Reflection		
Investigation		
Table		
Scale		
Matter		
Light		
Bulb		
Cell		
Current		

Hey! What does that mean?

What are living things made of?

## Looking at Plant and Animal cells

Go to this website:

<https://www.footprints-science.co.uk/index.php?type=Plant%20and%20animal%20cells&section=Section2&info=3>

Animal and plant cells

GCSE Biology quizzes GCSE Chemistry quizzes GCSE Physics quizzes

1 - controls the activities of the cell  
2 - in which chemical reactions take place  
3 - controls what goes in and out  
4 - strengthens the cell  
5 - filled with cell sap  
6 - absorbs light energy to make food

Reset Show answers

Drag and Drop the following labels: **Cytoplasm**

© Footprints-Science

Multiple choice Drag & drop Quiz Sentences Fill in blanks Challenge

Drag and drop the labels in the correct place on the diagrams. A tick will appear if they are

Use these tabs to explore different activities on the structure of cells.

You should now have enough information to complete the labelling cells task below.

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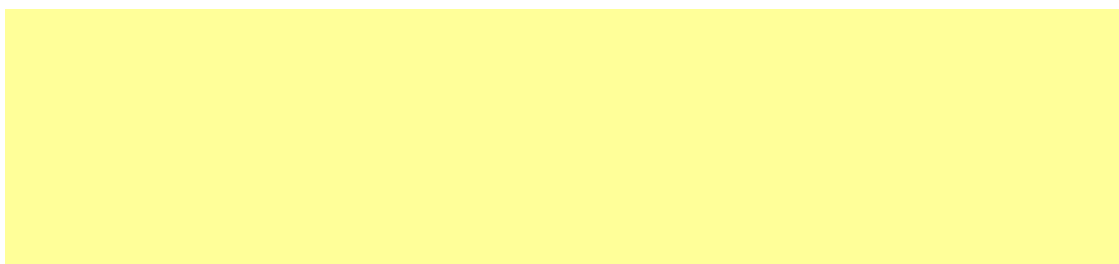
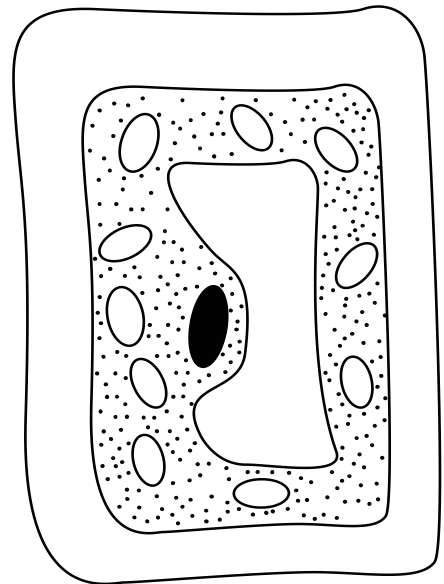
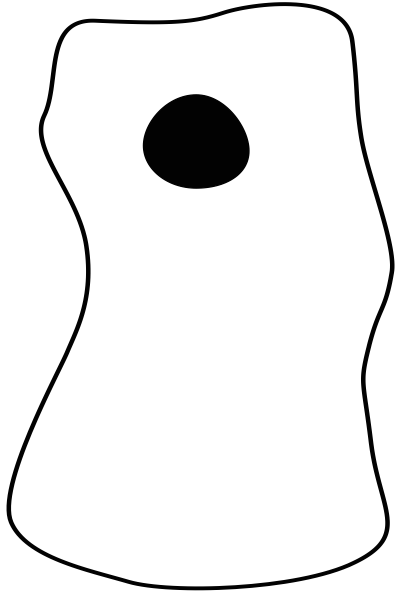
**Task**

Label the plant and animal cells below, then add mitochondria and ribosomes to each of them.

Label the following parts of each cell where appropriate:

cell membrane    cytoplasm    nucleus    mitochondria    ribosomes    chloroplasts    permanent vacuole    cell wall

Write a sentence to explain the function of each part you labelled.



Hey! What does that mean?

What is everything made of?

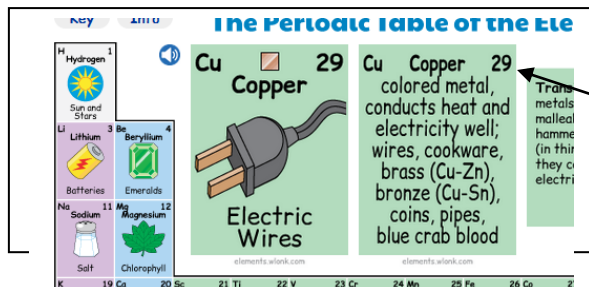
## Task 1- Chemistry

It is very useful to know the symbols for the first twenty elements in the periodic table.

Use the periodic table [here](https://elements.wlonk.com):

<https://elements.wlonk.com/ElementsTable.htm>

to complete the table. The first one has been done for you.



This is the atomic number

Atomic number	Name of element	Symbol
1	Hydrogen	H
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		



Hey! What does that mean?

## Task 2- Chemistry

- A. Using your Periodic table try to write five words using the symbols for the elements.

For example BeAr is beryllium and argon.

.....  
.....

- B. Can you write your whole name or part of your name using chemical symbols?

.....  
.....

- C. Write a short sentence using chemical symbols. Then write it out in full replacing the symbols with the **names** of the elements. Give your partner the full version and ask them to decipher it to find out the original message.

Symbol sentence

.....  
.....

Sentence using elements names

.....  
.....

- D. Decipher the secret message hidden in the code.

**boron-radium-iodine-nitrogen-yttrium / fluorine-oxygen-xenon-sulfur / tungsten-iodine-selenium / titanium-phosphorus: lithium-sulfur-tellurium-nitrogen & thorium-iodine-nitrogen-potassium / oxygen-fluorine-tellurium-nitrogen!**

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**Some messy Science to try**



Follow the link for an exciting way of reacting cola with mentos. Be warned this is messy so check with your parents/carers first,

[https://www.youtube.com/watch?time\\_continue=46&v=i8AkIT0cNDE&feature=emb\\_title](https://www.youtube.com/watch?time_continue=46&v=i8AkIT0cNDE&feature=emb_title)

**Physics Puzzle to try:**

Use the letters in the square to make as many words as you can. Each word must have at least 3 letters and there is one 9 letter word.

N	G	M
E	M	I
T	A	S