



Potassium - A Calligram

Potassium is the 19th element of the periodic table. It is a soft, silvery metal. It is used in making glass and in the production of potassium hydroxide. Potassium is found in coffee, nuts, chocolate, living cells and is essential for health. Potassium compounds are very useful. They are used mostly in fertilisers. They are also used in the production of potassium permanganate. Potassium is the 19th element of the periodic table. It is a soft, silvery metal. It is used in making glass and in the production of potassium hydroxide. Potassium is found in coffee, nuts, chocolate, living cells and is essential for health. Potassium compounds are very useful. They are used mostly in fertilisers. They are also used in the production of potassium permanganate.

Potassium is the 19th element in the periodic table. It's a metal but is light enough to float on water. This isn't a thing to try however, as when it comes into contact with water it immediately explodes!



INVESTIGATE THE SCIENCE

Despite this rather dangerous quality, potassium is important as a fertilizer - plant cells all require it - is used to produce liquid soap and in the manufacture of glass. **It is also an important mineral within the human diet and so is vital to good health!**

There are three food groups in our diet: carbohydrates, proteins and fats. Eating the correct amount of these is what gives us a **balanced diet**. However, we also need things called vitamins and minerals. Although we require these in tiny amounts, they are necessary for good health. Because we require only small amounts of them, vitamins and minerals are known as micro-nutrients.

Potassium is an important mineral. It helps our bodies' muscles to function well and for nerve signals to be sent. It may also help to control blood pressure and so reduce the chance of suffering stroke.

Use the internet to research the vitamins and minerals on the table provided, in order to complete the blank spaces.



Vitamins and minerals help to keep us healthy. But where can we get them from and what happens if we don't get enough of them in our diet? Research to complete the blanks in the table below .

Names	Source	Importance	Deficiency & symptoms
Vitamin A	Egg yolk Dark-coloured fruit Dark leafy vegetables	Important for vision, and promote the growth of skin, hair, bones, and teeth.	Night blindness- loss of vision in darkness
Vitamin B	Dark, leafy vegetables, whole grains, eggs and dairy products, seeds and nuts	Is good to keep heart and lungs healthy	
Vitamin C		Important in wound healing and acts as an antioxidant	
Vitamin D		Helps the body to absorb calcium, which creates healthy bones and teeth	
Vitamin E		It helps protect cells from damage	Muscle weakness, and vision problems
Vitamin K	Leafy green vegetables Dairy products, like milk and yogurt Broccoli, kiwi, and		
Calcium	Broccoli, milk, dark leafy greens like spinach and rhubarb and fortified product	Essential for strong bones and teeth, body's immune system.	Lack of it weak bones and tooth decay
Iron		Its presence helps to keep healthy blood and muscles. It also produces red blood	
Potassium	Broccoli, potatoes with the skin, prune juice, orange juice, leafy green vegetables	Keeps your muscles and nervous system working properly.	Vomiting, diarrhoea, adrenal gland disorders,

Complete the 'Captain K' Poster provided. 'K' is the chemical symbol for potassium - but more of that later. On your poster of the superhero Captain K, list and illustrate some of the 'superpowers' (qualities, uses and sources) of potassium.



INVESTIGATE THE STORY

You may notice that all of the minerals you may research above have something in common. If you haven't worked it out yet, they can all be found on the.....well, it would be too easy just to tell you, so solve the anagram below:

TAILORED BICEP



(extra clue: it's where you find all of the elements listed)

Potassium, obviously, starts with the letter 'P'. However, its chemical symbol is 'K'. Do some internet research to find out why potassium has 'K' as its symbol. Try not to settle for the first answer Google gives you! See if you can find the name of a plant and two scientists -one Swedish, one English - that are connected to the story.



INVESTIGATE THE POEM

Our poem is a calligram: a picture made up of words. The picture chosen for potassium was a banana, as these are a great source of this mineral.

Task 1: Why not try to unravel the calligram?

Take each statement that you can find in the banana calligram and make it a line of a new poem of 'free verse' (that's a poem with no rhymes). If you do it on a word processor, it's easy to change the order of the lines until you create a poem which sounds good to you.

Task 2:

Try making your own calligram! Choose your topic to write about. Try to select a topic that has an image associated with it that you can 'draw'.

Now make a really good list of words, phrases and short sentences that describe the topic, how you feel about it or simply provide information about it.

Make a light pencil drawing of the image you want to use.

Lastly, use your collection of phrases and words to go along the drawn lines. Do this in pen, so work carefully. You can then rub out any visible pencil lines to reveal your completed calligram.

CAPTAIN 'K'



CAPTAIN 'K'

