What is “Frequency?”

I have been asked fairly “frequently” to explain the meaning of the word, what exactly is meant when people refer to a Frequency.

A lady came up to me recently and said she really believed in frequencies. She said they did a lot of good in the world and had even thought that it might be an idea to keep a frequency on hand just in case she might need one.

Needless to say I found it extremely difficult, in fact impossible to convince her that a frequency was not a tangible object that you could carry around in a bottle in your handbag, or keep in the medicine chest.

For people like her there unfortunately is little hope – my fear is that some charlatan will exploit her ignorance and sell her a bottle of frequencies! One never knows, maybe the placebo effect from her bottle of frequencies might cure her!

The word frequency is used as if it were an object of sorts. This of course is quite incorrect.

Frequency is a “term” that describes an action.

Looking closer at the word itself, we could analyse it thus:

Betty says that she visits her local supermarket frequently.
Jane enquires as to how often Betty shops there.
Betty replies “Oh, at least five times a week.”

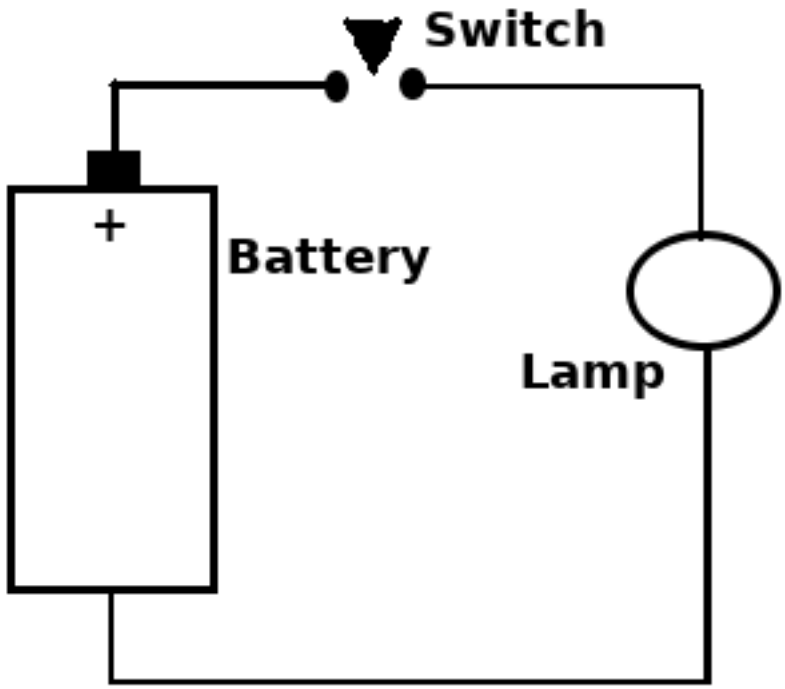
Therefore Betty shops at the local supermarket at a frequency of five times a per week,
or we could write that as 5/wk

So as you can see, frequency is not an object that does anything, it is merely a term used to express the result of an action of some kind.

In scientific circles frequency takes of the form that expresses the presence of an energy.

Energy comes in many forms. Lets first take a look at and explain something simple so as to gain a basic understanding.

Example 1



A simple circuit

In example one there are three connected items. A battery, a lamp and a switch.
A battery is used to store electrical energy in the form known as “Direct Current”.
Notice that the battery has a “plus” sign on it. This is the “positive” end (pole) of the battery.
The opposite end of the battery is the negative pole, usually indicated by a minus sign (-).
These two ends of a battery are called the battery’s “terminals”.

If one was to connect a length of copper wire across the positive and negative terminals, this would cause the stored energy within the battery to begin being released. The electrical energy would flow into the copper wire, through it in a return path back to the into battery.

If the flow as described above were absolutely true, then the battery would release energy and never ever loose any, as the description says the energy is returned back into the battery!

Of course this is not the case, as energy would be consumed within the connecting wire and a certain amount of energy would therefor not return back to the battery, resulting in the battery eventually running out of energy and being depleted.

In the example above we have connected a push switch and lamp is “series” with the battery terminals. Series is the term used when components are connected so that a current will “pass through” each of them when active.

The switch has two terminals and an activator. When the activator is pressed, it connects the switch's two terminals together so that the energy from the battery can pass through it.

So, the energy from the battery passes through the switch and into the Lamp. When the lamp is energised it turns on, emitting light due to the energy from the battery flowing through it and returning unused energy back to the battery, thus completing the energy circuit.

So here we see that the energy from the battery is being consumed. The energy from the battery is converted into light energy by the lamp.

When the switch is released the lamp will turn off as the energy from the battery will stop flowing.

Lets say that the switch is pressed and released once in one second. That means the lamp will turn on for one second.

If after another second passes the switch is pressed again, then the lamp will turn on again, and the switch released again after one second, and all activity stops after anther second.

Our switching on and off was done over a total of four seconds. On twice and off twice.

This equates to the lamp turning on and off twice in four seconds, or once in two seconds.

Now if we pressed the switch for half a second and the released it for half a second and so on, that would equate to the lamp being turned on and off once in one second.

The lamp turning on and then off again is regarded as a complete cycle. On, Off before being turned on again.

This can be written as one complete cycle in one second, or 1cps – cps stands for cycles per second.

The ON/OFF cycle of the example above is 1cps, also written as 1c/s or as is written today a 1 Hertz, abbreviated to 1 Hz.

Why is it called Hertz and no longer cycles per second (cps) ?

The word Hertz was chosen to honour the extensive work done by Heinrich Rudolf **Hertz.** He was a German physicist who first conclusively proved the existence of the electromagnetic waves theorised by James Clerk Maxwell's electromagnetic theory of light.

Now if you were to toggle the push switch in our circuit on and off as quickly as you can, you might reach an on/off speed of say twenty times a second. That would mean you have created a frequency of light (from the lamp) of 20 Hertz (20 Hz). We will assume our lamp is producing white light each time it turns on.

Now this is where it can get complicated, because light itself is due to electromagnetic waves being turned on and off at a particular rate - typically white light which itself includes the full colour spectrum of light frequency range from 430–770 THz.

THz is one trillion Hertz (10^{12} Hz). You would never be able to activate the switch in our example above that quickly!!

Causing out lamp to illuminate at 20 Hz is in turn causing electromagnetic waves (light) to be emitted at a rate of 20Hz.

In technical terms we would be modulating the light at a frequency of 20 Hz

One of the many popular frequencies is 432Hz which is commonly referred to as the Healing Frequency.

To create this frequency of electromagnetic energy, we would need to switch an electrical current on and off 432 times each second (432 cycles per second or 432Hertz).

432Hz falls within the audible range, meaning that if an electromagnetic signal was created to "oscillate" at 432Hz the signal could be connected to an audio amplifier and thus be reproduced via the amplifier's loudspeaker to be heard by the human ear.

Likewise, the signal produced could be fed into metal probes that could be hand held and thereby the energy absorbed by the human.

Bear in mind humans have 5 main senses: vision, hearing, smell, touch and taste.

To get the electromagnetic energy to be absorbed by a human easily these five senses can be made use of. Vision, hearing and touch are the easiest when using simple electromagnetic frequencies.

There is another method also known as Complex Wave Absorption. This method employs a high power carrier frequency modulated by the frequency (say 432Hz) required. The high power carrier is at a frequency and power high enough to penetrate directly into a body thus applying the energy (frequency/vibrations) directly to the bodies cells. This is similar to X-Rays and other forms of radiation which can be extremely dangerous to human life and should only be considered for use by qualified trained professionals using tried and tested instruments/equipment which are very costly items and generally out of reach of most people.

So making use of simple electromagnetic waves using Micro-Current Technology is the safest way as it make use of one or more of the readily available 5 senses of the human.

Listening to sounds, holding probes, absorbing light through the eyes are all safe and proven methods. Again even using any of these methods is is always advisable and recommended that before doing so you obtain advice from a trained and qualified medical professional.

Hopefully this very brief explanation has been of some help in gaining an understanding of the word Frequency.