

## **Put a Quark in It**

*A recent study finally corroborates Einstein's Special Theory of Relativity, "E=MC<sup>2</sup>", is true... that energy can be converted into mass and mass into energy.*

The study confirms the Einstein's proposal of Special Theory of Relativity – which has bewildered scientists of its origins for over a century.

Imagining mass converting into energy is not too difficult for the average person but imagining energy turning into a lump of something is slightly more difficult – that is if you are trying to imagine anything other than on the sub-atomic level.

## **The Mass/Energy connection**

So mass can turn into energy, and energy can turn into mass. So what? Well it appears that atoms, at a sub-atomic level, are mostly... empty. Only 5% of the atom is actually mass – the other 95% being the interaction between sub-atomic particles. This means that 95% of your body is actually massless. Imagine that!

## **Planet Earth and the Universe**

So if our bodies are made of 5% mass, this means that the entire Planet Earth is actually sort of a "see through" object if we looked close enough. When we see an object, we are actually seeing the energy that is being emitted from its atoms.

## **References to Dark Energy and Dark Matter**

Many findings are showing that most of the universe is made up of Dark Matter and Dark Energy, which combined make up for 95% of the known universe. The cosmic gases make up about 4% which leaves stars and other physical mass to less than 1%. Could there be a correlation here between the mass/energy connections of Einstein's theory?

## **Light: Particle, Wave, or Both?**

For long time, it was debated whether light was a particle or a wave. It acted like a particle during certain tests and it acted like a wave during other experiments. Einstein's theory remains true again that light is a particle and a wave at the same time and experiments could be done to bring out either one. His theory also states that all things, humans, plants, animals, and even planet Earth, exhibit a particle-wave duality. We're both energy and mass, at the same time.

It would seem that energy and mass is constantly morphing in and out, transforming and converting into one state and the other at the same time. Look at your hand and try to imagine it as a field of fuzzy energy waves. Now try to imagine your body, the world outside you as a big field of fuzzy energy. That's duality! Someday, the human race will be able to utilize these findings and allow for extraordinary means of traveling – possibly

to distant planets or galaxies. Who knows, maybe we'll invent a light powered airship to take us to the stars and beyond.

By-line:

This post was contributed by Kelly Kilpatrick, who writes on the subject of [online state community colleges](#) She invites your feedback at kellykilpatrick24 at gmail dot com