

Before the Beginning: Waves & Particles 2

EPHESIANS 1:9 Having made known unto us the mystery of his will, according to his good pleasure which he hath purposed in himself:

EPHESIANS 1:10 That in the dispensation of the fulness of times he might gather together in one all things in Christ, both which are in heaven, and which are on earth; even in him:

EPHESIANS 1:11 In whom also we have obtained an inheritance, being predestinated according to the purpose of him who worketh all things after the counsel of his own will:

Energy – ability/capacity to do work.

Energy (from Greek *enérgeia* 'activity') is the quantitative property that is transferred to a body or to a physical system, recognizable in the performance of work and in the form of heat and light.

The total energy of a system can be subdivided and classified into potential energy, kinetic energy, or combinations of the two in various ways. Kinetic energy is determined by the movement of an object – or the composite motion of the components of an object – and potential energy reflects the potential of an object to have motion, and generally is a function of the position of an object within a field or may be stored in the field itself.

While these two categories are sufficient to describe all forms of energy, it is often convenient to refer to specific combinations of potential and kinetic energy as its own form.

For example, the sum of translational and rotational kinetic and potential energy within a system is referred to as mechanical energy, whereas nuclear energy refers to the combined potentials within an atomic nucleus from either the nuclear force or the weak force, among other examples.

Common forms of energy include the kinetic energy of a moving object, the potential energy stored by an object (for instance due to its position in a field), the elastic energy stored in a solid object, chemical energy associated with chemical reactions, the radiant energy carried by electromagnetic radiation, and the internal energy contained within a thermodynamic system. All living organisms constantly take in and release energy.

Human civilization requires energy to function, which it gets from energy resources such as fossil fuels, nuclear fuel, or renewable energy. The Earth's climate and ecosystems processes are driven by the energy the planet receives from the Sun (although a small amount is also contributed by geothermal energy).

Due to mass–energy equivalence, any object that has mass when stationary (called rest mass) also has an equivalent amount of energy whose form is called rest energy, and any additional energy (of any form) acquired by the object above that rest energy will increase the object's total mass just as it increases its total energy.

In physics, **mass–energy equivalence** is the relationship between mass and energy in a system's rest frame. The principle is described by the physicist Albert Einstein's formula: $E = mc^2$. In a reference frame where the system is moving, its relativistic energy and relativistic mass (instead of rest mass) obey the same formula.

The formula defines the energy E of a particle in its rest frame as the product of mass (m) with the speed of light squared (c^2). Because the speed of light is a large number in everyday units (approximately 300000 km/s or 186000 mi/s), the formula implies that a small amount of "rest mass", measured when the system is at rest, corresponds to an enormous amount of energy, which is independent of the composition of the matter.

Type of energy	Description
Mechanical	the sum of macroscopic translational and rotational kinetic and potential energies
Electric	potential energy due to or stored in electric fields
Magnetic	potential energy due to or stored in magnetic fields
Gravitational	potential energy due to or stored in gravitational fields
Chemical	potential energy due to chemical bonds
Ionization	potential energy that binds an electron to its atom or molecule
Nuclear	potential energy that binds nucleons to form the atomic nucleus (and nuclear reactions)
Chromodynamic	potential energy that binds quarks to form hadrons
Elastic	potential energy due to the deformation of a material (or its container) exhibiting a restorative force as it returns to its original shape

Type of energy	Description
Mechanical wave	kinetic and potential energy in an elastic material due to a propagating oscillation of matter
Sound wave	kinetic and potential energy in a material due to a sound propagated wave (a particular type of mechanical wave)
Radiant	potential energy stored in the fields of waves propagated by electromagnetic radiation, including light
Rest	potential energy due to an object's rest mass
Thermal	kinetic energy of the microscopic motion of particles, a kind of disordered equivalent of mechanical energy

Energy is a conserved quantity—the law of conservation of energy states that energy can be converted in form, but not created or destroyed.

The unit of measurement for energy in the International System of Units (SI) is the joule (J).

JOHN 6:29 Jesus answered and said unto them,
This is the work of God, that ye believe on him
whom he hath sent.

GREEK LEXICON -- STRONG'S NUMBER 2041

ergon {er'-gon} from a primary (but obsolete) ergo (to work); TDNT -- 2:635,251; n n

AV work (152), deed (22), doing (1), labour (1) [176]

1) business, employment, that which any one is occupied, enterprise, undertaking

2) any product whatever, any thing accomplished by hand, art, industry, or mind

3) an act, deed, thing done

Energy – ability/capacity to do work.

Work - the energy transferred to or from an object via the application of force along a displacement.

Force - In physics, a force is an influence that can cause an object to change its velocity, i.e., to accelerate, unless counterbalanced by other forces. The concept of force makes the everyday notion of pushing or pulling mathematically precise.

Power - is the amount of energy transferred (work) or converted per unit time. It can also be described as the rate with respect to time at which work is done. In older texts, power is sometimes called activity.

63-0112 INFLUENCE, PHOENIX.AZ SATURDAY

33 You know, there is so many of us, and most all of us influence somebody by the things that we do, and the way we live, and the things we say. We influence somebody. Somebody is watching your life. And then when we profess to be Christians, what type of life should we live if somebody is watching us? And your life that you live will reflect an influence on somebody. That might... It might be the... Their Eternal destination will rest upon the way that you live and the things that you do, for they watch you.

Anointing – power in control

MATTHEW 25:15 And unto one he gave five talents, to another two, and to another one; to every man according to his several ability; and straightway took his journey.

EZRA 2:69 They gave after their ability unto the treasure of the work threescore and one thousand drams of gold, and five thousand pound of silver, and one hundred priests' garments.

DANIEL 1:4 Children in whom was no blemish, but well favoured, and skilful in all wisdom, and cunning in knowledge, and understanding science, and such as had ability in them to stand in the king's palace, and whom they might teach the learning and the tongue of the Chaldeans.

HEBREW LEXICON -- STRONG'S NUMBER 3581

koach {ko'-akh} or (Dan. 11:6) kowach {ko'-akh} from an unused root meaning to be firm; TWOT -- 971.1; n m

1) strength, power, might

1a) human strength

1b) strength (of angels)

1c) power (of God)

1d) strength (of animals)

1e) strength, produce, wealth (of soil)

MATTHEW 25:15 And unto one he gave five talents, to another two, and to another one; to every man according to his several ability; and straightway took his journey.

MATTHEW 24:30 And then shall appear the sign of the Son of man in heaven: and then shall all the tribes of the earth mourn, and they shall see the Son of man coming in the clouds of heaven with power and great glory.

GREEK LEXICON - STRONG'S NUMBER 1411

dunamis {doo'-nam-is} from 1410; TDNT - 2:284,186; n f

AV power (77), mighty work (11), strength (7), miracle (7), might (4), virtue (3), mighty (2), misc. (9) [120]

1) strength power, ability

1a) inherent power, power residing in a thing by virtue of its nature, or which a person or thing exerts and puts forth

1b) power for performing miracles

1c) moral power and excellence of soul

1d) the power and influence which belong to riches and wealth

1e) power and resources arising from numbers

1f) power consisting in or resting upon armies, forces, hosts

GREEK LEXICON - STRONG'S NUMBER 1410

dunamai {doo'-nam-ahee} of uncertain affinity; TDNT -- 2:284,186; vb

AV can (could) (100), cannot + 3756 (45), be able (37), may (might) (18)

able (3), misc (7) [210]

1) to be able, have power whether by virtue of one's own ability and resources, or of a state of mind, or through favourable circumstances, or by permission of law or custom; to be able to do something; to be capable, strong and powerful

I PETER 4:11 If any man speak, let him speak as the oracles of God; if any man minister, let him do it as of the ability which God giveth: that God in all things may be glorified through Jesus Christ, to whom be praise and dominion for ever and ever. Amen.

GREEK LEXICON - STRONG'S NUMBER 2479

Ischus {is-khoos'} from a derivative of is (force, compare eschon, a form of 2192); TDNT -- 3:397,378; n f

AV strength (4), power (2), might (2), ability (1), mightily + 1722 (1), mighty (1) [11]

1) ability, force, strength, might

GREEK LEXICON - STRONG'S NUMBER 2192

echo {ekh'-o} including an alternate form scheo {skheh'-o}, used in certain tenses only), a primary verb; TDNT -- 2:816,286; vb

AV have (612), be (22), need + 5532 (12), misc (63) [709]

1) to have, i.e. to hold; to have (hold) in the hand, in the sense of wearing, to have (hold) possession of the mind (refers to alarm, agitating emotions, etc.), to hold fast keep, to have or comprise or involve, to regard or consider or hold as

2) to have i.e. own, possess; external things such as pertain to property or riches or furniture or utensils or goods or food etc., used of those joined to any one by the bonds of natural blood or marriage or friendship or duty or law etc, of attendance or companionship

3) to hold one's self or find one's self so and so, to be in such or such a condition

4) to hold one's self to a thing, to lay hold of a thing, to adhere or cling to; to be closely joined to a person or a thing

EPHESIANS 6:12 For we wrestle not against flesh and blood, but against principalities, against powers, against the rulers of the darkness of this world, against spiritual wickedness in high places.

GREEK LEXICON -- STRONG'S NUMBER 3823

pale {pal'-ay} from pallo (to vibrate, another form for 906);

TDNT -- 5:721,770; n f

AV -- wrestle (1)

1) wrestling (a contest between two in which each endeavours to throw the other, and which is decided when the victor is able to hold his opponent down with his hand upon his neck); the term is transferred to the Christian's struggle with the power of evil

ROMANS 15:9 And that the Gentiles might glorify God for his mercy; as it is written, For this cause I will confess to thee among the Gentiles, and sing unto thy name.

GREEK LEXICON -- STRONG'S NUMBER 5567

psallo {psal'-lo} probably strengthened from psao (to rub or touch the surface, compare 5597); TDNT -- 8:489,1225; vb

AV sing (3), sing psalms (1), make melody (1) [5]

1a) to pluck off, pull out

1b) to cause to vibrate by touching, to twang; to touch or strike the chord, to twang the strings of a musical instrument so that they gently vibrate; to play on a stringed instrument, to play, the harp, etc.; to sing to the music of the harp; in the NT to sing a hymn, to celebrate the praises of God in song

I SAMUEL 3:10 And the LORD came, and stood, and called as at other times, Samuel, Samuel. Then Samuel answered, Speak; for thy servant heareth.

I SAMUEL 3:11 And the LORD said to Samuel, Behold, I will do a thing in Israel, at which both the ears of every one that heareth it shall tingle.

HEBREW LEXICON -- STRONG'S NUMBER 5128

nuwa' {noo'-ah} a primitive root; TWOT -- 1328; v

1) to quiver, totter, shake, reel, stagger, wander, move, sift, make move, wave, waver, tremble

1a) (Qal)

1a1) to wave, quiver, vibrate, swing, stagger, tremble, be unstable

1a2) to totter, go tottering

1a2a) vagabond (participle)

1b) (Niph) to be tossed about/around

1c) (Hiph)

1c1) to toss about

1c2) to shake, cause to totter

1c3) to shake, disturb

1c4) to cause to wander

EXODUS 29:24 And thou shalt put all in the hands of Aaron, and in the hands of his sons; and shalt wave them for a wave offering before the LORD.

HEBREW LEXICON -- STRONG'S NUMBER 5130

nuwph {noof} a primitive root; TWOT -- 1329,1330; v

1) to move to and fro, wave, besprinkle

1a) (Qal) to besprinkle, sprinkle

1b) (Po) to wave, brandish (in threat)

1c) (Hiph) to swing, wield, wave

1c1) to wield

1c2) to wave/shake (the hand)

1c2a) to wave (hand)

1c2b) to shake/brandish against

1c2c) to swing to and fro

1c3) to wave (an offering), offer

1c4) to shed abroad

1d) (Hoph) to be waved

144 Dear God, as I know that this is paged on the Book, the great Record! We have blundered into science, Lord, enough to wake us up, for realities to know that every move that we make goes around and around the world, the same time we make it. We've got that through television. **We do realize, Father, that that television doesn't manufacture a picture, it only channels the vibrations into a tube that makes the picture.** Even the color of clothes that we've got on, shows through the ether waves of the air, that vibration around the world.

65-1205 - Things That Are To Be

83 Oh, could a bunch like that ever believe in Him? No, sir. They had been so hog-wallowed in the muck of societies and filth of the day, until they were so ecclesiastical froze up until they couldn't feel the **vibrations of the Power of Almighty God.**

65-0219 - This Day This Scripture Is Fulfilled