

## ACROSS

- 2 In physics and other sciences, \_\_\_\_\_ is defined as a work one system does (or can do) on another system
- 5 Mechanical \_\_\_\_\_ is the amount of energy transferred by a force.
- 6 A \_\_\_\_\_\_ force is a force that does zero net work on a particle that travels along any closed path in an isolated system.
- 7 A \_\_\_\_\_ is a rigid object that is used with an appropriate fulcrum or pivot point to multiply the mechanical force that can be applied to another object.
- 8 The \_\_\_\_\_ energy is the energy which causes or is released by the physical distortion of a solid or a fluid.
- 14 The \_\_\_\_\_\_ of energy states that the total amount of energy in an isolated system remains constant, although it may change forms.
- **15** A \_\_\_\_\_ is a wheel with a groove along its edge for holding a rope or cable or belt.
- 16 The \_\_\_\_\_ is the SI derived unit of power, equal to one joule per second.
- **17** The inclined \_\_\_\_\_\_ is a flat surface whose endpoints are at different heights.
- **18** A simple \_\_\_\_\_ is any device that only requires the application of a single force to work.

## DOWN

- 1 \_\_\_\_\_\_ is the rate at which work is performed or energy is transmitted. It is the amount of energy required or expended for a given unit of time.
- **3** The \_\_\_\_\_\_ is a unit of energy often used also in theoretical physics as a unit of mass. It is the amount of kinetic energy gained by a single unbound electron when it passes through an electrostatic potential difference of one volt, in vacuo.
- **4** A \_\_\_\_\_\_ is a unit of measurement for energy equal to the amount of heat required to raise a gram of water one degree celsius. In most fields, it has been replaced by the joule.
- **9** Mechanical \_\_\_\_\_ is the factor by which a mechanism multiplies the force put into it.
- **10** The \_\_\_\_\_\_ energy of an object is the extra energy which it possesses due to its motion, defined as the work needed to accelerate the body from rest to its current speed.
- 11 \_\_\_\_\_ energy is energy stored within a physical system.
- 12 The gravitational \_\_\_\_\_\_ energy of an object consisting of loose material, held together by gravity alone, is the amount of energy required to pull all of the material apart, to infinity.
- 13 The \_\_\_\_\_ is the SI unit of energy.