

Building Big Things – Vocabulary List

Archimedes- a Greek mathematician that came up with theories on the law of the lever and the screw

Balance - 1. an instrument for weighing 2. a condition of being equal

Complex - made up of a number of parts

Data - collected information from experiments

Drag - to pull a tug on in order to slow something down

Efficiency - the ability to do things without the waste of time or energy

Effort - the use of strength or energy to do something

Force - a push or pull that might cause an object to move

Fulcrum - the object on which a lever might balance

Gravity - the attraction objects have on each other that pull things towards the center of the object. Mass, gravity will cause an object to have weight.

Graph - a visual representation of data from an experiment

Horsepower - a unit for measuring the power of an engine or motor

Inclined plane - a slanted object that allows you to roll or lift an object to varied heights

Inertia - the tendency to remain in the state one is in and not to start changes

Kinetic energy - energy of motion

Law of conservation of energy – Energy can not be created or destroyed. It can only be changed from one form of energy into another.

Law of the lever - whatever is on the one side of the fulcrum will be the same as what is on the other if the lever is balanced (load X load arm = effort X effort arm)

Lever - a board or rod that can be placed on or against a pivot allowing you to lift or raise a heavier object

Lift - the upward movement of an object

Mechanical advantage -The ratio of resistance or load to the force or effort that is applied in a machine

Movement - when a stationary object gains the ability to change its position

Newton - Mathematician/scientist that came up with several rules on the motion of objects

Units of force- force is measured in Newtons (100 g = 1 N)

Potential energy - stored energy waiting for movement

Pulley- a wheel with a grooved rim in which a rope can run and so change the direction of the pull

Push - to move something by pressing against it

Ramp - a slanted object that allows you to roll or raise an object to varied heights

Resistance - the act of resisting – to slow down - An opposing force that tries to slow something down

Screw - a kind of nail with a ridge twisted evenly around its length and usually a groove across its head

See Saw - a piece of equipment (playground) found at the park that works as a lever balanced on top of a fulcrum.. This allows children to raise each other up.

Wedge - a piece of metal or wood, thick at one end and tapering to a thin edge at the other. It is used for splitting or separating.

Wheel and Axle - a device or simple machine consisting of a cylindrical bar (axle) on which a wheel is fastened.. It is used to lift weight by winding rope around the axle.

Work – force x distance = work ($f \times d = w$)

