

SCIENCE

Name: _____ Group: _____ Date: _____

1  ¹⁵ Listen and match.

- | | |
|-----------------------------|--|
| a ____ Romans | 1 It is the ratio of the output force over the input force. |
| b ____ input force | 2 They built aqueducts that are also examples of inclined planes. |
| c ____ mechanical advantage | 3 They used inclined planes to move materials to construct the pyramids. |
| d ____ output force | 4 It is the force used to move an object on an inclined plane. |
| e ____ Egyptians | 5 It is the force needed to move an object vertically without using an inclined plane. |

____ / 5

Read and match.

- | | |
|---|------------------|
| a ____ It is a simple machine made of a bar that moves around a fixed point. | 1 efficiency |
| b ____ It is the force or energy applied or transferred to an object. | 2 inclined plane |
| c ____ It is the percentage of input work that is converted into output work. | 3 work |
| d ____ It is a simple machine shaped like a ramp. | 4 simple machine |
| e ____ It is a basic device that makes work easier. | 5 lever |

____ / 5

Read and complete with words from the box.

mechanical compound wedges conversion
simple robots input axle output MA

A ¹ _____ machine consists of two or more
² _____ machines put together so that the
output force of the first is the ³ _____ force of
the second and the ⁴ _____ force of the
second is the input force of the third, and so on until
all the machines are in use. This process is what we
call the energy ⁵ _____ path of a compound
machine. Therefore, the ⁶ _____ advantage
(MA) of a compound machine is the product of
the ⁷ _____ of each simple machine that
composes it. Generally, a compound machine



can do more difficult jobs than simple machines. For example, a bicycle is a compound machine in
which the wheels and pedals form two wheel and ⁸ _____ systems, the brakes are formed
by lever systems and, in some bicycles, the seat adjustment is a screw. Modern automobiles,
airplanes and ⁹ _____ are very complicated compound machines formed by levers,
screws, wheels and axles, ¹⁰ _____ and inclined planes.

____ / 10

Read and write the corresponding word.

- a It is a machine that uses two or more simple machines to do work.
- b It is a simple machine made of a wheel and a rope or chain.
- c It is a branch of engineering that studies the design, manufacture, theory and application of robots.
- d It is an inclined plane wrapped around a cylinder that converts spiral force into linear force.
- e It is two inclined planes put back to back.

c _____

p _____

r _____

s _____

w _____