

**SCIENCE**

Name: \_\_\_\_\_ Group: \_\_\_\_\_ Date: \_\_\_\_\_

1  <sup>15</sup> 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.

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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

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Read and complete with words from the box.

mechanical compound wedges conversion  
simple robots input axle output MA

A <sup>1</sup> \_\_\_\_\_ machine consists of two or more <sup>2</sup> \_\_\_\_\_ machines put together so that the output force of the first is the <sup>3</sup> \_\_\_\_\_ force of the second and the <sup>4</sup> \_\_\_\_\_ 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 <sup>5</sup> \_\_\_\_\_ path of a compound machine. Therefore, the <sup>6</sup> \_\_\_\_\_ advantage (MA) of a compound machine is the product of the <sup>7</sup> \_\_\_\_\_ 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 <sup>8</sup> \_\_\_\_\_ systems, the brakes are formed by lever systems and, in some bicycles, the seat adjustment is a screw. Modern automobiles, airplanes and <sup>9</sup> \_\_\_\_\_ are very complicated compound machines formed by levers, screws, wheels and axles, <sup>10</sup> \_\_\_\_\_ and inclined planes.



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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 \_\_\_\_\_