

# SIMPLE MACHINES

## MAQUINAS SIMPLES

STUDENT GUIDE



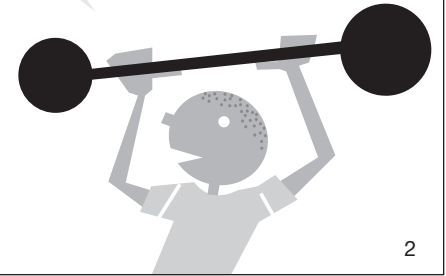
NAME \_\_\_\_\_

Look for simple machines throughout the Museum and record your findings in this booklet!

1

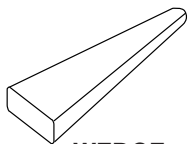
We use machines to reduce the amount of effort, or force, we exert. Simple machines make our work easier by enabling us to use less force. When less force is used, it must be applied over a longer distance.

$$\text{work} = \text{force} \times \text{distance}$$

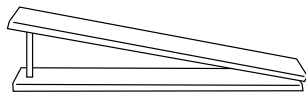


2

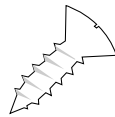
There are six different simple machines:



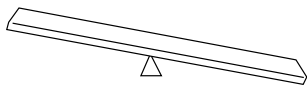
**WEDGE**  
CUÑA



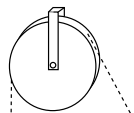
**INCLINED PLANE**  
PLANO INCLINADO



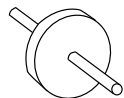
**SCREW**  
TORNILLO



**LEVER**  
PALANCA



**PULLEY**  
POLEA



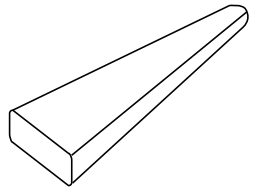
**WHEEL AND AXLE**  
RUEDA Y EJE

3

### INSTRUCTIONS

1. CUT PAGES ALONG DOTTED LINES.
2. THROW THIS PAGE AWAY.
3. ARRANGE REMAINING PAGES IN NUMERICAL ORDER.
4. STAPLE PAGES ALONG LEFT EDGE TO FORM A BOOKLET.

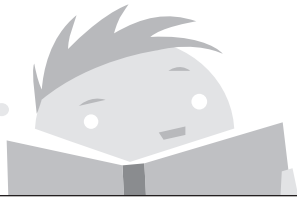




# WEDGE *CUÑA*

An inclined plane that is thick at one end and tapers to a point on the other, often used to separate things.

LIKE A BOAT!

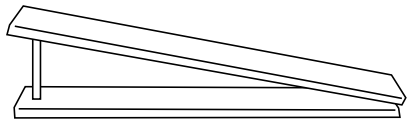


# LOOK FOR A WEDGE

I AM IN THE \_\_\_\_\_ EXHIBIT.

DRAW THE WEDGE IN THIS EXHIBIT:

HOW DOES THE WEDGE MAKE WORK EASIER?



# INCLINED PLANE

*PLANO INCLINADO*

A flat surface with one edge raised higher than the other.

LIKE A SKATEBOARD RAMP!

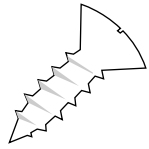


# LOOK FOR AN INCLINED PLANE

I AM IN THE \_\_\_\_\_ EXHIBIT.

DRAW THE INCLINED PLANE IN THIS EXHIBIT:

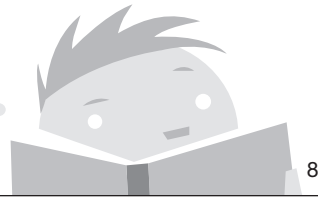
HOW DOES THE INCLINED PLANE MAKE WORK EASIER?



# SCREW *TORNILLO*

A specialized simple machine that is used to raise and lower things as well as hold things together.

LIKE A BOTTLE LID!

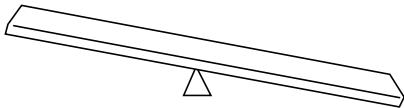


# LOOK FOR A SCREW

I AM IN THE ..... EXHIBIT.

DRAW THE SCREW IN THIS EXHIBIT:

HOW DOES THE SCREW MAKE WORK EASIER?



# LEVER *PALANCA*

Bar used for raising or moving weights centered on a fulcrum.

LIKE A SEESAW!

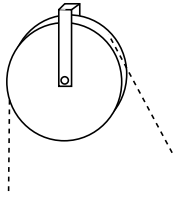


# LOOK FOR A LEVER

I AM IN THE ..... EXHIBIT.

DRAW THE LEVER IN THIS EXHIBIT:

HOW DOES THE LEVER MAKE WORK EASIER?



# PULLEY *POLEA*

A simple machine with one or more grooved wheels connected by a rope.

LIKE A  
FLAGPOLE!



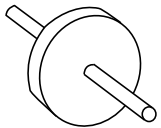
# LOOK FOR A PULLEY

I AM IN THE \_\_\_\_\_ EXHIBIT.

DRAW THE PULLEY IN THIS EXHIBIT:

HOW DOES THE PULLEY MAKE WORK EASIER?

.....  
.....



# WHEEL AND AXLE

*RUEDA Y EJE*

A moveable simple machine centered on a fixed point.

LIKE A  
CAR  
WHEEL!



# LOOK FOR A WHEEL AND AXLE

I AM IN THE \_\_\_\_\_ EXHIBIT.

DRAW THE WHEEL AND AXLE IN THIS EXHIBIT:

HOW DOES THE WHEEL AND AXLE MAKE WORK EASIER?

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