

B G M

simple Machines Jeonardy!



Another

MS. Collins

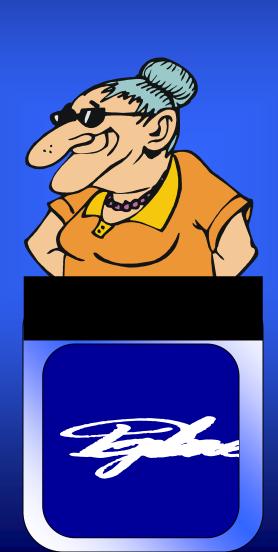
Presentation

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Directions:

- Scroll through the presentation and enter the answers (which are really the questions) and the questions (which are really the answers).
- Enter in the categories on the main game boards.
- As you play the game, click on the **TEXT DOLLAR AMOUNT** that the contestant calls, not the surrounding box.
- When they have given a question, click again anywhere on the screen to see the correct question. Keep track of which questions have already been picked by printing out the game board screen and checking off as you go.
- Click on the "Game" box to return to the main scoreboard.
- Enter the score into the black box on each players podium.
- Continue until all clues are given.
- When finished, **DO NOT** save the game. This will overwrite the program with the scores and data you enter. You **MAY** save it as a different name, but keep this file untouched!







Vocabulary	Types of Simple Machines	Using Simple Machines	How Simple Machines Work	Simple Machines Hodge- Podge	BONUS: Moving Day
\$100	\$100	\$100	\$100	\$100	\$100
\$200	\$200	\$200	\$200	\$200	\$200
\$300	\$300	\$300	\$300	\$300	
\$400	\$400	\$400	\$400	\$400	
\$500	\$500	\$500	\$500		

Round 2

Final Jeopardy

Scores

A machine with few or no moving parts that you apply just one force to

- (a) complex machine
- (b) simple machine
- (c) generator
- (d) compound machine

(b) simple machine

The fixed point on a lever

- (a) effort
- (b) fulcrum
- (c) load
- (d) arm

(b) fulcrum

The use of force to move an object over a distance

- (a) work
- (b) acceleration
- (c) velocity
- (d) inertia

(a) work

A simple machine made of a wheel and an axle that turn together

- (a) screw
- (b) pulley
- (c) wedge
- (d) wheel-and-axle

(d) wheel-and-axle

A simple machine that is a slanted surface

- (a) lever
- (b) wheel-and-axle
- (c) inclined plane
- (d) screw

(c) inclined plane

A simple machine made of two inclined planes placed back-to-back

- (a) lever
- (b) pulley
- (c) fulcrum
- (d) wedge

(d) wedge

A simple machine made of a wheel with a line around it

- (a) wheel-and-axle
- (b) screw
- (c) inclined plane
- (d) pulley

(d) pulley

A simple machine made of a bar that pivots on a fixed point

- (a) lever
- (b) inclined plane
- (c) wheel-and-axle
- (d) pulley

(a) lever



A simple machine made of a post with an inclined plane around it

- (a) wheel-and-axle
- (b) screw
- (c) pulley
- (d) wedge

(b) screw

What must a wheel and an axle do to be a simple machine?

- (a) The wheel and the axle must turn together.
- (b) The wheel and the axle must decrease the work by half.
- (C) The axle must stay still while the wheel turns.
- (d) The wheel must have a fixed fulcrum.

(a) The wheel and the axle must turn together.

Four scouts are doing different jobs at camp. Which scout is using a pulley?

- (a) Lizbeth pries open a can of fruit for breakfast.
- (b) Sara rolls a wheelbarrow of firewood to the campsite.
- (c) Katie raises the flag on the flagpole.
- (d) Tonya trims hedges with hedge clippers.

(c) Katie raises the flag on the flagpole.

Which simple machine could you use to hold two objects together?

- (a) lever
- (b) pulley
- (c) screw
- (d) wheel-and-axle

(c) screw

Which kind of simple machine is the wheelchair resting on?

- (a) inclined plane
- (b) lever
- (c) pulley
- (d) screw

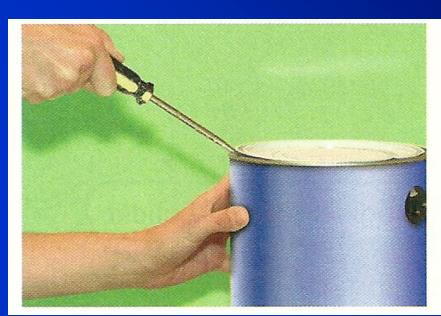


(a) inclined plane

5400 How is the screwdriver being used in this picture?

- (a) as a lever
- (b) as a screw
- (c) as a pulley





(a) as a lever

Which kind of simple machine is the beater part of a mixer?

- (a) pulley
- (b) wheel-and-axle
- (c) pulley and lever
- (d) two pulleys

(b) wheel-and-axle

A wedge is a simple machine. What other kind of simple machine do you need to make a wedge?

- (a) fulcrum
- (b) inclined plane
- (c) pulley
- (d) screw

(b) inclined plane

Which of the following does NOT change the direction of a force?

- (a) inclined plane
- (b) pulley
- (c) wedge
- (d) wheel-and-axle

(d) wheel-and-axle

Screws have threads that are simple machines. What kind of machine are the threads on screws?

- (a) blades
- (b) fulcrums
- (c) inclined planes
- (d) wedges

(c) inclined planes

Where can the fulcrum of a lever NOT be?

- (a) the end of the bar
- (b) the middle of the bar
- (c) between the middle and the end
- (d) not touching the bar

(d) not touching the bar

Which detail about an ax lets you know that it is a wedge?

- (a) It has just one inclined plane.
- (b) It changes the way work is done.
- (c) It has two inclined planes.
- (d) It changes the direction of the force applied.

(c) It has two inclined planes.

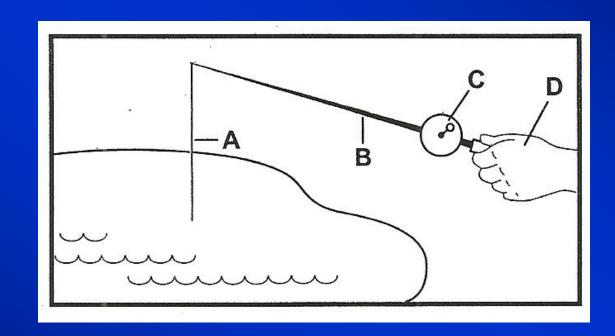
Scientists have a special meaning for work. Which one of these is an example of scientific work?

- (a) pushing on a door that won't open
- (b) lifting a box off the floor
- (c) standing still with a backpack strapped to your back
- (d) reading a textbook

(b) lifting a box off the floor

Look at the labeled parts of the diagram. Which part shows a fulcrum?

- (a) Part A
- (b) Part B
- (c) Part C
- (d) Part D



(d) Part D

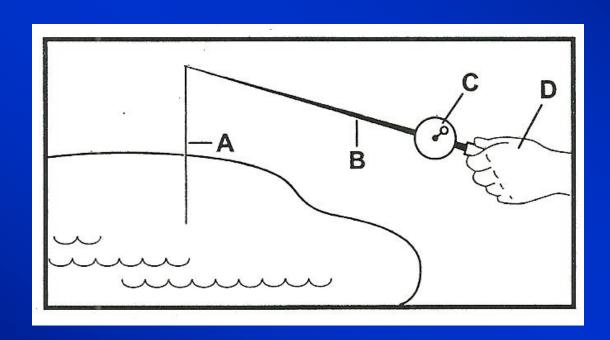
Which of the following is an example of work to a scientist?

- (a) solving a mental math problem
- (b) carrying a book across the room
- (c) pushing against the floor
- (d) lifting a chair off the floor

(d) lifting a chair off the floor

Which simple machine is shown in the diagram?

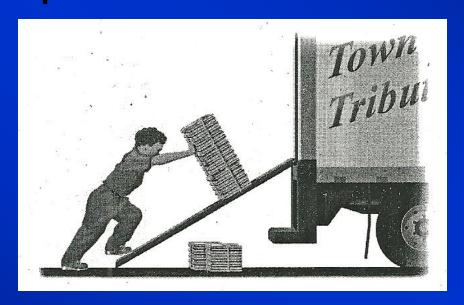
- (a) inclined plane
- (b) lever
- (c) pulley
- (d) wedge



(b) lever

Moving Day

A ramp is a kind of inclined plane. Recall what you know about inclined planes.



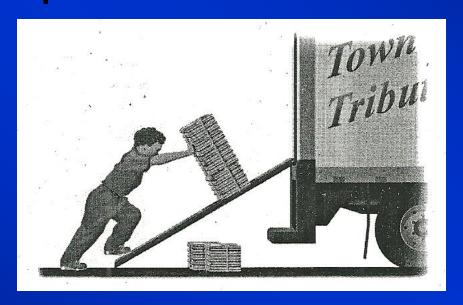
A. Explain how the ramp changes the distance and the size of the force needed to move the load up into the truck.

Part A

The ramp <u>increases the distance</u> but <u>decreases the force</u> needed to do the work.

Moving Day

A ramp is a kind of inclined plane. Recall what you know about inclined planes.



B. You are moving a heavy box into the back of a truck. Would you rather use a steep ramp, a less-steep ramp, or a ladder? Explain your choice.

Part B

I would rather use a <u>less-steep ramp</u>. Using a less-steep ramp to move the heavy box would require <u>less effort (force)</u>, but you would move the box a greater distance.

If I used a <u>steep ramp</u>, I would have to <u>use</u> more effort because I would be moving the box a shorter distance forward.

If I used a <u>ladder</u>, I <u>wouldn't be going any</u> <u>distance forward</u>, and I would have to <u>carry</u> <u>the load straight up</u>, which would be very hard.







						Round 1
—			>			Round 1
\$200	\$200	\$200	\$200			Final Jeopardy
\$400	\$400	\$400	\$400			Scores
\$600	\$600	\$600	\$600			
\$800	\$800	\$800				
\$1000	\$1000	\$1000				























Final Jeopardy

Scores

Final Jeopardy Question

