



Be the first kid on your block to catch a real live leprechaun!  
Make a **Leprechaun Trap!**

Due on \_\_\_\_\_

You are going to design and build a leprechaun trap with a parent.

It should not be too much larger than a shoe box and have at least two of the following simple machines: pulley, lever, wedge, wheel, inclined plane, or

screw.

Keep in mind how you will attract the leprechaun to your trap as well as how you will trap him in there once you do attract him.

1. Gather together all kinds of scrap material to make the perfect leprechaun trap. Some suggestions of materials are:

- |                   |                      |
|-------------------|----------------------|
| a. small boxes    | h. hair rollers      |
| b. bags           | i. plastic spoons    |
| c. spools         | j. "bait"            |
| d. straw          | k. Pieces of wood    |
| e. anything shiny | l. Cardboard         |
| f. yarn string    | m. Four leaf clovers |
| g. paper cups     | n. Rainbows          |

2. Design the trap. Sketch out your plan. Decide how to attract a leprechaun and eventually catch him! Be clever, smart and tricky!
3. Build the trap. Use nails, glue or string to make your trap "leprechaun tight." Don't make it too big – remember you're catching a leprechaun – not a giant!
4. Write a direction sheet (like you would find in a game) to tell people how your trap works.
5. Bring your trap to school on \_\_\_\_\_.

**Hint:** Leprechauns are tricky fellows – they like shiny things, things that glitter. They are also naughty and often disobey signs.



Below is the rubric for this project. This is how I will be grading this project.

4

- Has something to attract a leprechaun.
  - Has two small machines.
  - Is neatly done.
- All words in the write up and any on project are spelled correctly and neatly.
- The write up very clearly shows how the trap works.

3

- Has something to attract a leprechaun.
  - Has two small machines.
  - Is neatly done.
- Has no more than one mistake in writing on project or write up.
- The write up shows how the trap works.

2

- Has something to attract a leprechaun and/or one moving part.
  - Is neatly done.
- Has a few mistakes in writing on project and/or write up.
- The write up isn't very clear about how the trap works.

1

- Has something to attract a leprechaun or one moving part.
- Has some mistakes in writing on project and/or write up.
  - It's confusing how the trap works.



## Examples of Simple Machines

**Pulley:** a simple machine that uses a wheel and a rope to help lift heavy or awkward item  
Flag poles, clothes line, sail on a sailboat, blinds, and crane

**Lever:** a board or bar that rests on a turning point to help move heavy things.  
See-saw, catapult, hammer, bottle openers

**Wedge:** a simple machine used to push two objects apart, can split things apart and meet to form a sharp edge.  
Fork, knives, nails, axes

**Wheel:** a simple machine that helps move things from place to place  
Cars, roller skates, wagons, door knobs, gears in watches, clocks, bikes

**Inclined plane:** a flat surface that is higher on one end, like a hill  
Ramp, slanted road, path up a hill, a slide

**Screw:** a simple machine that is used to hold objects together  
Jar lids, light bulbs, stools key rings, spiral staircase

\*\*\*For more information on simple machines, feel free to look them up on these websites:

[http://www.coe.uh.edu/archive/science/science\\_lessons/scienceles1/finalhome.htm](http://www.coe.uh.edu/archive/science/science_lessons/scienceles1/finalhome.htm)  
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<http://www.mikids.com/Smachines.htm>

<http://www.fi.edu/qa97/spotlight3/spotlight3.html>

# Simple Machines

