A Complicated Contraption

The assignment sounded easy enough for lab partners Adam and Kelsey. The assignment was to use Rube Goldberg's style to design a series of simple and complex machines that would complete an easy task. The lab partners with the most creative design would win a prize.

“What's the difference between a simple machine and a complex machine?” wondered Adam.

“Who or what is Rube Goldberg?” questioned Kelsey.

The partners knew they had some research to do in order to complete their project and hopefully win a prize.

First the two went to the school library to review the definitions of simple and complex machines. Kelsey read out loud, “A simple machine is a device that can be used to change the direction and size of forces. Examples are a lever, a pulley, an inclined plane, a wedge, a screw, and a wheel and axle.” Kelsey read on to learn that a complex machine is two or more simple machines put together to do work. “A wheelbarrow then is a complex machine,” she said, “because it combines a lever and a wheel and axle.”

Next the partners headed to Adam's house where they searched for “Rube Goldberg” on the Internet. They learned that Rube Goldberg was a cartoonist who was famous for his drawings of funny machines that did very simple things in a complicated way. Most of the machines had numerous parts made up of simple and complex machines. For example, the gears of an eggbeater would turn a string on a pulley that would turn on a fan that would blow up a balloon and so on until a simple task was performed.

*Use several simple and complex machines, such as a can opener, a fishing rod and reel, a nutcracker, and a scissors, to design your own “Rube Goldberg” invention to accomplish a simple task. Draw your creation in the box below.*