A Simple Solution for the Circus Activity: Simple Solution Instructions

The Scenario

> The circus travels from town to town by rail. On its way to your town it jumped track and the rail car with the elephant tumbled over. Local rail line workers were able to get the train back on track, but the circus still has a problem: how do they get the elephant back into the rail car? Your task is to lift the elephant six feet into the rail car.

Instructions

Design a way to get the elephant back on the train. Each group must do the following:

1. **Brainstorm ideas.** Engineers think about many different approaches to solve a design challenge. Make a list of all the simple machines. Write down a couple different ideas for your elephant-moving device. Remember the following requirements and constraints in your design: limited money for materials, must be fast (time efficient), safe for the elephant, and use at least one simple machine in the design.
2. **Evaluate your ideas and pick the most promising idea.** Engineers often create a drawing or model of a design before creating the real thing to help find design flaws. Each group should create a drawing of their most promising design on a piece of white paper. Make sure all the parts of your drawing are clearly labeled, including the simple machine(s). No "magical" buttons allowed. Write steps or a flow chart for how the machine works!
3. **Present your design.** Engineers need to be able to communicate their ideas effectively. Each group will present their design and drawing to the rest of the class for one minute.