

Bill Nye: *Simple Machines*

1. A roller coaster is a Simple machine.
2. Simple machines help us do work by changing the size and direction of forces.
3. A catapult is a kind of lever.
4. The pivot point on a lever is called the fulcrum.
5. Every lever has two ends and a fulcrum.
6. A wheel is many levers pivoting around one fulcrum.
7. Gears are wheels with teeth.
8. A stairway is a ramp and a ladder combined.
9. The force to pull something up a ramp is less than the force needed to pull the object straight up.
10. A screw is like a ramp wrapped around a stick.
11. A crane uses pulleys to lift things up.
12. A pulley makes things easier to lift because it spreads the work. A longer rope reduces the amount of work.
13. The simple machines are:
  - a. wheel and axle
  - b. pulley
  - c. ramp, also called an inclined plane
  - d. screw
  - e. wedge
  - f. lever