

Simple machines decrease the force, or effort, needed to lift and move heavy objects. There are several different types of simple machines, including levers, wheels and axels, pulleys, inclined planes, wedges, and screws.



## Key vocabulary

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### **simple machines**

A tool that changes the strength, direction of force, or the distance over which force acts, reducing the amount of effort necessary to complete a task.

### **lever**

A bar that makes it easier to move things and includes a lever arm and a fulcrum, or balance point.

### **fulcrum**

The point of support for a lever. A fulcrum never moves.

### **wheel and axle**

A wheel with a rod in the center that allows easy movement.

### **pulley**

A wheel that uses a rope to change the direction of force on an object.

### **inclined plane**

A ramp.

### **wedge**

Two inclined planes used to make a cutting edge.

### **screw**

A spiraled ramp.

### **work**

The effort and the distance traveled to complete a task.

## Related articles

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### Force & Motion

If you want motion, you have to add force. But once you get something moving, what makes it stop? That is force, too!



### Newton's Third Law: Action & Reaction

Every action has an equal and opposite reaction. Newton's third law of action and reaction explains how objects affect each other when they collide. See how it works!



### Gravity & Inertia

There is a special force of attraction that keeps our planet together. Do you know what it is?



### Newton's First Law: Inertia

Isaac Newton figured out a lot of important rules about motion, and inertia is the first one.



### Newton's Second Law: Acceleration

You have heard of a car accelerating, right? Well, the same word can be used for any object. Here is how it works!