

Wedges

A **wedge** is made up of two inclined planes. Unlike an inclined plane which does not move, the wedge moves to do work. Wedges can be used to lift things, separate things, or tighten and attach things in place. Use the terms in the word box to label each use of a wedge.

lift separate tighten attach

- 1 _____ A nail is a wedge. Drive the nail into a block of wood.
- 2 _____ A doorstop is a wedge. Prop a door open with a doorstop.
- 3 _____ The blades of a pruner are wedges. Cut a branch with the pruners.
- 4 _____ The blades on a pair of scissors are wedges. Use the scissors to cut paper.
- 5 _____ A piece of wood can be a wedge. A man slips a wedge under a heavy box.
- 6 _____ A chisel is a wedge. An artist uses a chisel to carve a statue.
- 7 _____ Paper staples are wedges. Use staples to hold pages together.
- 8 _____ An axe is a wedge. Use an axe to split a log.
- 9 _____ Little wedges of wood can tighten a loose chair leg. Hammer the wedges into the space where the chair leg is attached to the seat.
- 10 _____ Wedges of metal can secure the head of an axe. Pound the wedges into the wood where the handle joins the axe head.
- 11 _____ The edge of a snow shovel is a wedge. Use the shovel to push snow off your driveway.
- 12 _____ The blade of a knife is a wedge. Be careful as you slice a piece of cheese for a hamburger with the wedge.

Screws

Screws are a simple machine that is a combination of other simple machines. Match each word in the word box to its description.

inclined plane wheel and axle wedge drill	threads handle force jackscrew	turned axle distance
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- 1 _____ This is a variation of a screw that is designed to make holes in wood or other materials.
- 2 _____ A screw is one of these wrapped around a cylinder.
- 3 _____ With the use of a screwdriver, this is done to the screw as it enters the wood or other material.
- 4 _____ When you are moving the screw with a screwdriver, you are really moving it with this simple machine.
- 5 _____ Without the threads, a screw is basically a nail, which is an example of this.
- 6 _____ When driving a nail, it takes a lot of this to push apart the wood as the nail enters it.
- 7 _____ On a screw, the inclined plane forms these ridges in a spiral along the cylinder.
- 8 _____ When turning a screw, it takes less force but you use more of this as the screw enters the wood.
- 9 _____ This tool is a variation of a screw that allows a platform to raise and lower extremely heavy objects.
- 10 _____ This part of the screwdriver acts as a wheel to do the work.
- 11 _____ The shaft of the screwdriver and the screw itself act as one of these to do the work.