

An Introduction to Machines

SPH4C

A **machine** is a _____ that helps us _____.

It may:

- transform _____ (e.g. an _____)
- transfer _____ (e.g. a _____)
- change the _____ of a force (e.g. a _____)
- change the _____ of a force (e.g. a _____)
- change distance or speed (e.g. _____)

Many machines are _____ **machines**, constructed of several _____ machines working together.

Simple machines can be split into 2 families:

- the _____ family
- the _____ family

A **lever** is a rigid bar that can _____ freely around a support called a _____.

Pulleys, wheels, and gears all rotate _____ around a fulcrum.

The inclined plane family consists of the:

- inclined plane
- _____
- _____

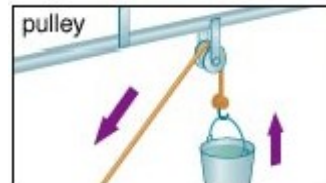
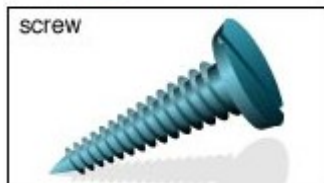
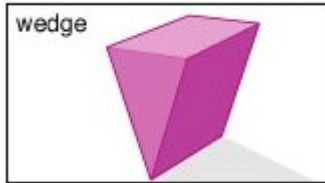
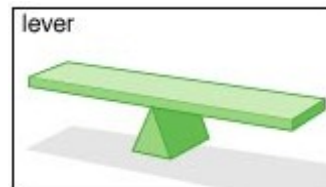
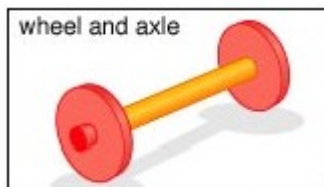
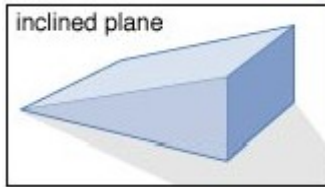
An **inclined plane** is simply a ramp that moves something _____ as it moves vertically (and _____ may be included).

A **wedge** is a _____ inclined plane.

A **screw** is an inclined plane _____ a central axis.

Biomechanical systems, which are systems involving a _____, can also be understood as machines, e.g. the human forearm works as a _____.

More Practice



Identify each of the following as a lever, pulley, wheel and axle, inclined plane, wedge, or screw:

