

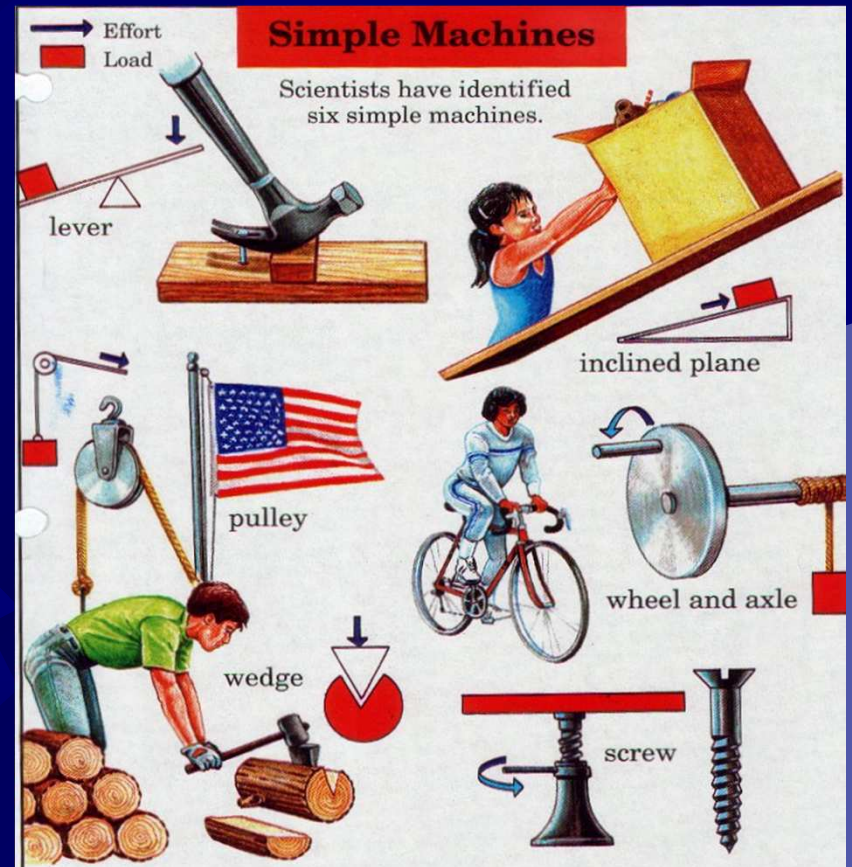


# Simple Machines



# What is a Simple Machine?

- ☀ A simple machine has few or no moving parts.
- ☀ Simple machines make work easier



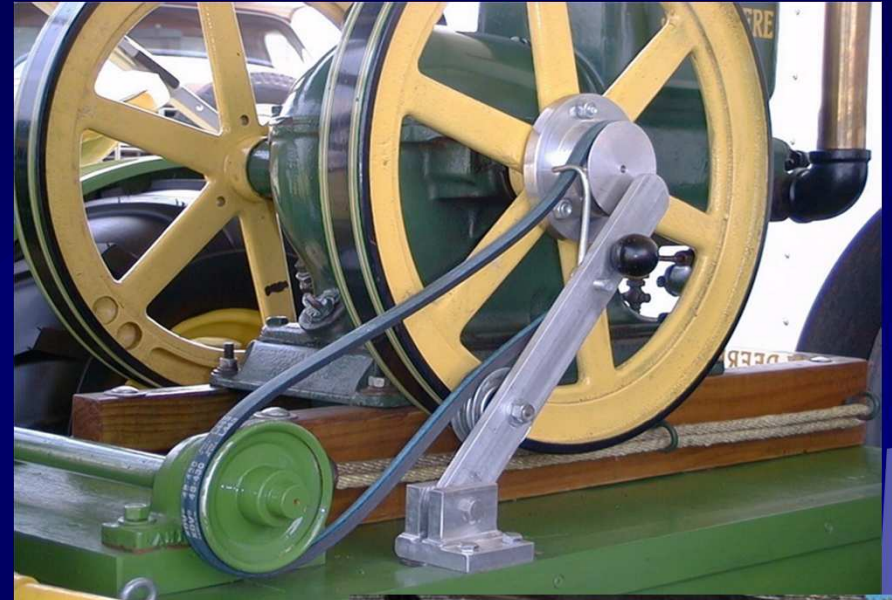
# Wheels and Axles

- ★ The wheel and axle are a simple machine
- ★ The axle is a rod that goes through the wheel which allows the wheel to turn
- ★ Gears are a form of wheels and axles



# Pulleys

- ☀ Pulley are wheels and axles with a groove around the outside
- ☀ A pulley needs a rope, chain or belt around the groove to make it do work



# Inclined Planes

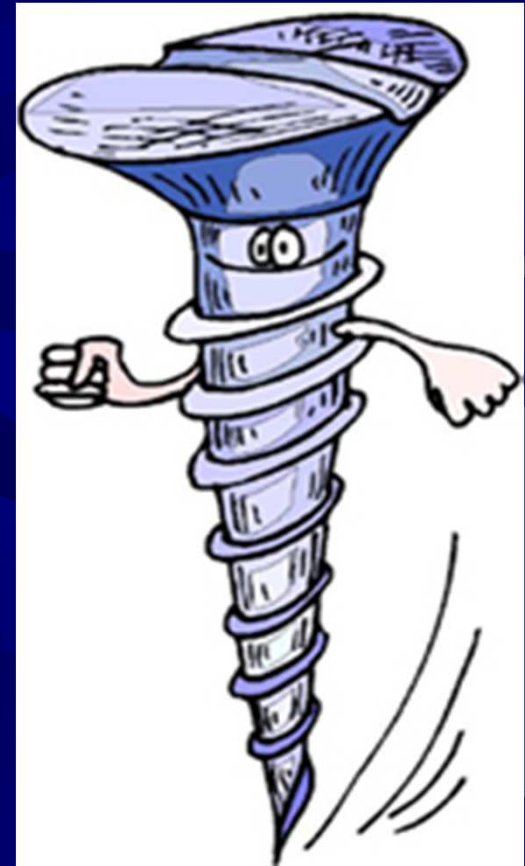
- ✦ An inclined plane is a flat surface that is higher on one end
- ✦ Inclined planes make the work of moving things easier





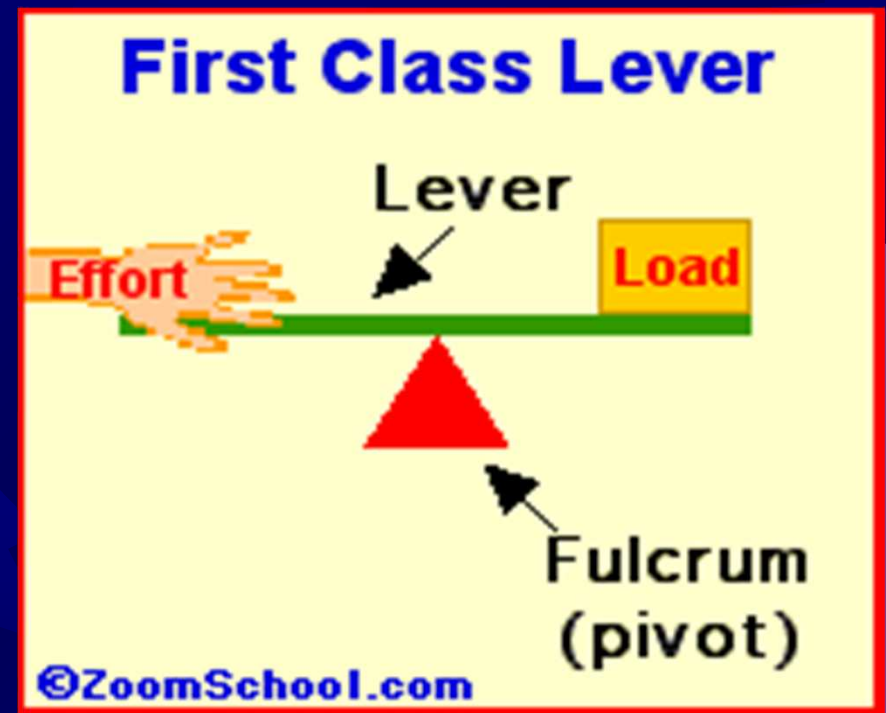
# Screws

- ★ A screw is an inclined plane wrapped around a shaft or cylinder.
- ★ The inclined plane allows the screw to move itself when rotated.



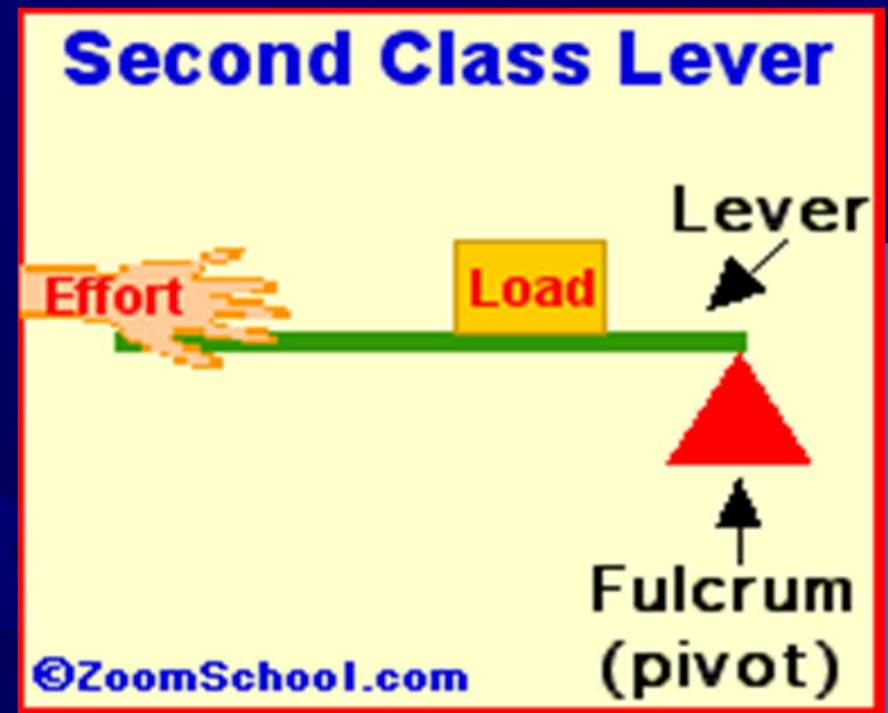
# Levers-First Class

- ✦ In a first class lever the fulcrum is in the middle and the load and effort is on either side
- ✦ Think of a see-saw



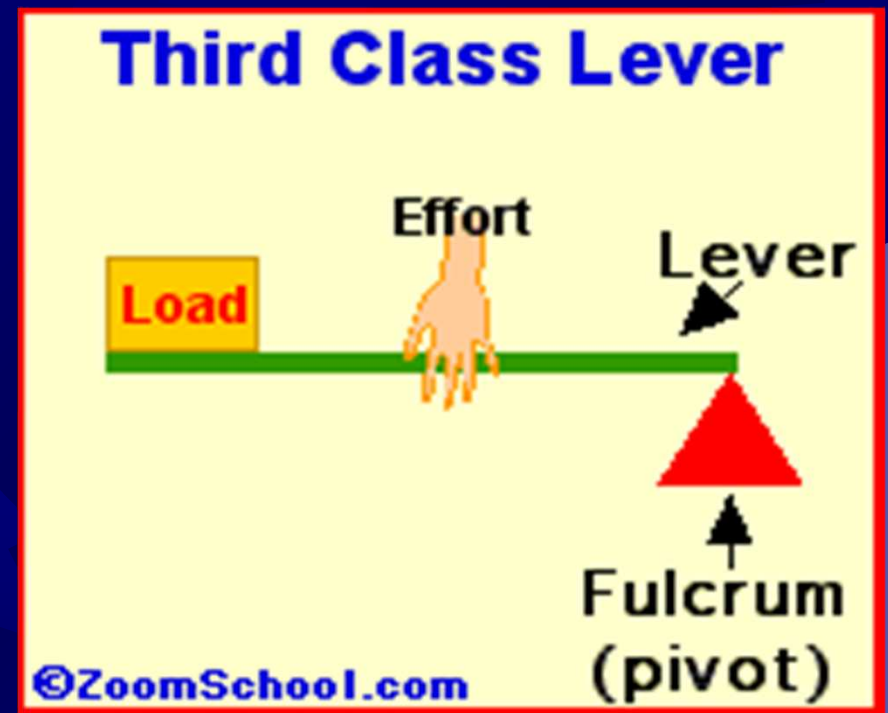
# Levers-Second Class

- ✦ In a second class lever the fulcrum is at the end, with the load in the middle
- ✦ Think of a wheelbarrow



# Levers-Third Class

- ✦ In a third class lever the fulcrum is again at the end, but the effort is in the middle
- ✦ Think of a pair of tweezers



# Simple Machines

- ★ Simple Machines can be put together in different ways to make complex machinery

