

## Automotive Engineering 1

# Simple Machines Matching Game

**Prepare Ahead for the Volunteer: Before the meeting...**

1. Print and cut out the “Everyday Objects,” “Labels,” and “Vehicle Parts” for Step 1. Keep the sets in separate piles.
2. Use the “Vehicle Diagram” to draw a larger, blank outline of a vehicle on a sheet of chart paper or a white board for Step 1. Do not label anything.

## Everyday Objects



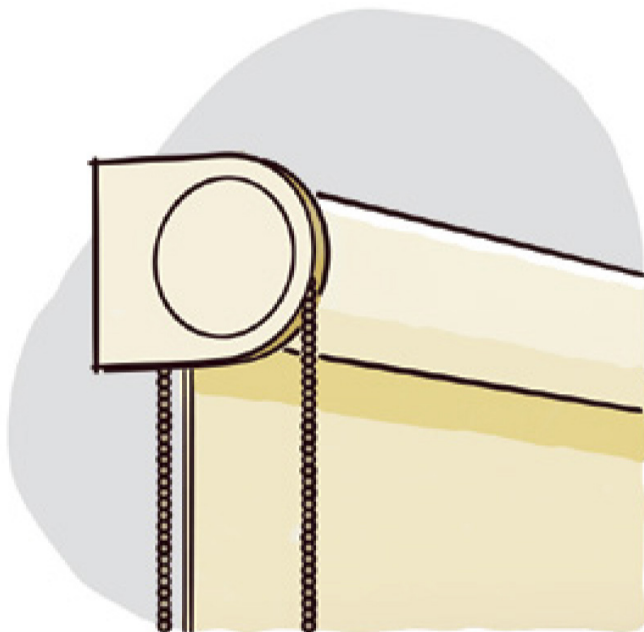


## Everyday Objects





## Everyday Objects



## Labels

**Wheel and Axle:** A wheel that turns around a rod in its center, called the axle, makes moving things easier.

**Screw:** An inclined plane wrapped around a pole in a spiral shape. Screws convert a force that goes around to a force that goes up and down.

**Inclined Plane:** An angled surface, or ramp, that helps you move things up and down a height.

**Lever:** A stiff bar that pivots on a fulcrum. A lever lifts an item on one end when force is applied to the other end.

**Pulley:** A wheel on an axle that moves things by changing the direction of a push or a pull.

**Wedge:** Two inclined planes positioned back to back. Wedges can be used to push two things apart by redirecting force from the flat end of the triangle to the two sides.

## Vehicle Parts



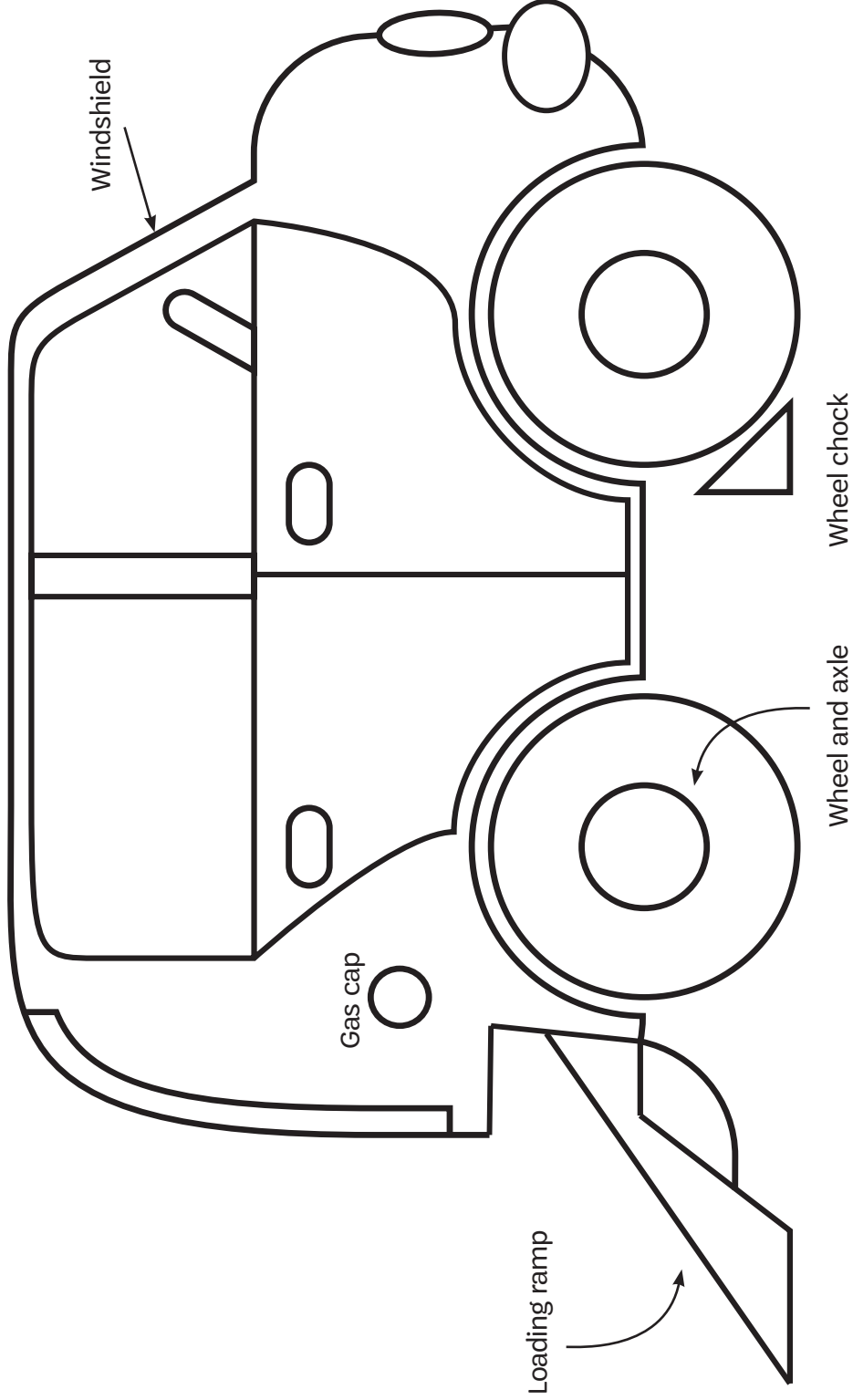








## Vehicle Diagram



Interior parts that are not shown on the diagram: Gearshift, Seatbelt